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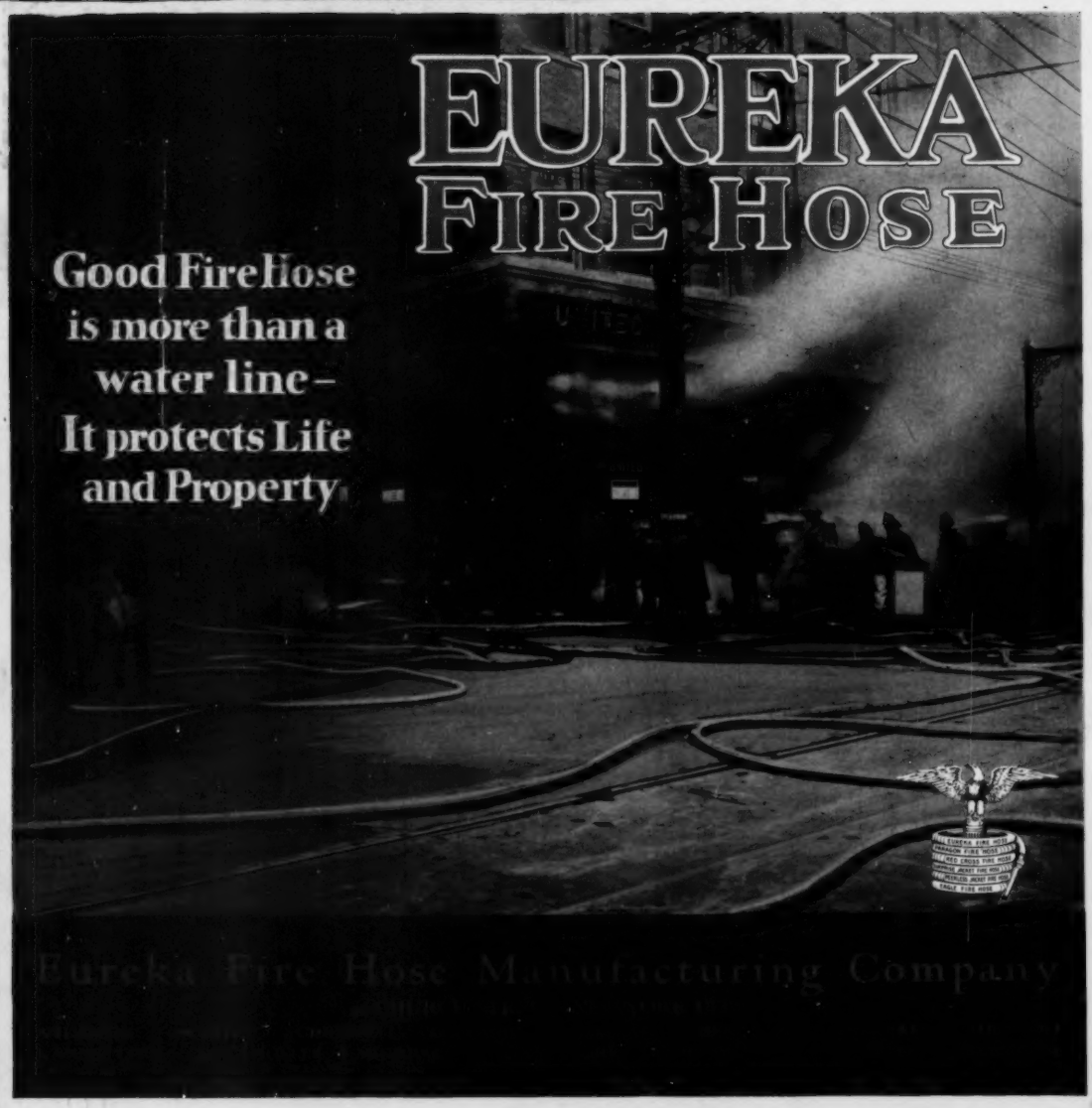
The Journal of the Fire Protection Profession

FEBRUARY 5, 1930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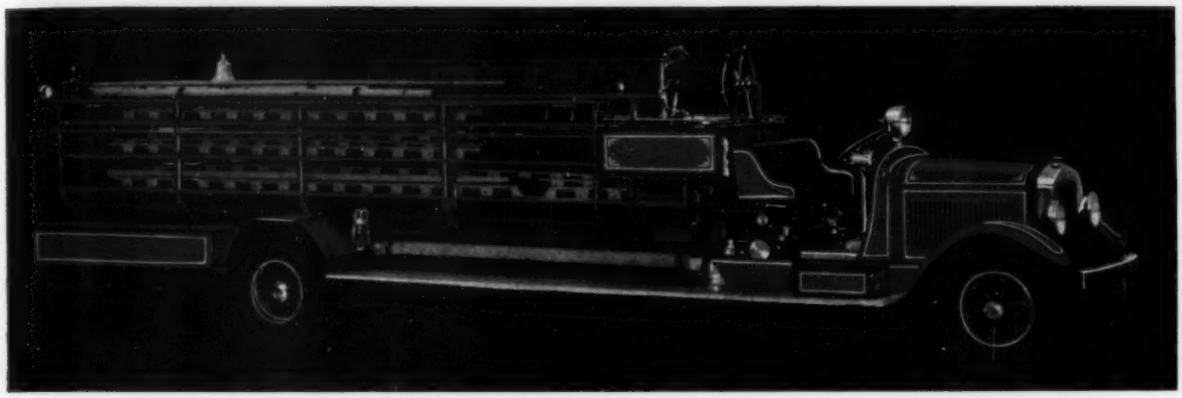

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¶ It has always been our effort to devote special attention to the problems of the smaller fire department. Comment like the above is sound evidence that we are giving our readers what they want. What else matters?

The Publishers

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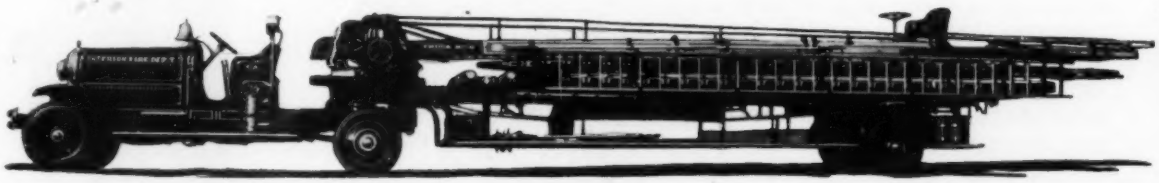

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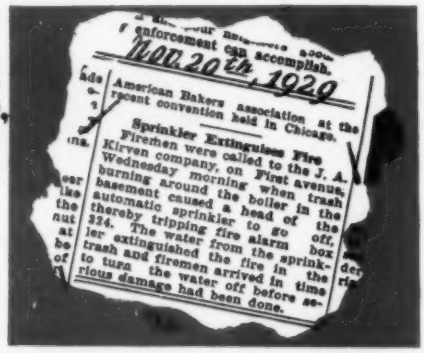

enforcement can accomplish.

Nov 20th, 1929

American Bakers association at the recent convention held in Chicago.

Sprinkler Extinguishes Fire

Firemen were called to the J. A. Kirven company, on First avenue, Wednesday morning when trash burning around the boiler in the basement caused a head of the automatic sprinkler to go off, thereby tripping fire alarm box 324. The water from the sprinkler extinguished the fire in the trash and firemen arrived in time to turn the water off before serious damage had been done.

COLUMBUS (GA.) LEDGER
November 20, 1929

SEVEN Gamewell *"Sprinkler Watchmen"* are in service at Columbus, Georgia; the first one being installed there 8 years ago. According to Mr. T. F. Tillman, Supt. of Fire Alarm, each of the concerns that installed a *"Sprinkler Watchman"* was allowed a reduction in its insurance rate, dependent upon the class of risk. This rate reduction was possible because of the satisfactory manner in which the *"Sprinkler Watchman"* reduces the fire and water hazard, by automatically transmitting an alarm to the fire department whenever a sprinkler head goes off. Otherwise, it would be necessary to wait until a passerby discovered the fire.

The *"Sprinkler Watchmen"* (Gamewell *Master* Fire Alarm Boxes) at Columbus are connected right into the regular box circuits. The maintenance expense amounts to practically nothing. Mr. Tillman states: "Each *'Sprinkler Watchman'* should be tested once each month. However, we have not had occasion to do maintenance work on any of the boxes since installation."

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The Journal of the Fire Protection Profession

VOLUME LXXXIII FEBRUARY 5, 1930 NUMBER 3

When Is a Fire Chief Entitled to Damages for Injury?

Important Decision in a Case of This Kind—Other Rulings by Higher Courts on Various Fire Matters

By LEO T. PARKER, Attorney-at-Law

ALTHOUGH a state law or a municipal ordinance prohibits motor vehicles traveling at a higher rate of speed than that specified by the law, operators of fire department vehicles are not bound by such regulation. This point of law was discussed by the higher Court in the recent case of Benefiel vs. Eagle Brass Foundry, 282 Pac. 213.

The facts are that a battalion chief in a municipal fire department, in command of a fire station, together with his chauffeur, left the station during the afternoon in response to an alarm of fire. Although the siren was being sounded the driver of a motor truck attempted to drive across a street intersection in front of the fire chief. The chief's car collided with the truck and the chief was injured. He sued the owner of the truck for damages for the injuries sustained.

The owner of the motor-truck attempted to avoid liability on the contention that the fire chief was violating a municipal speed law ordinance when the accident occurred.

The lower Court held the driver of the truck guilty of negligence which proximately contributed to the accident, and failed to find that the fire chief or his driver had been guilty of contributory negligence which would in law bar any recovery against the owner of the motor-truck. The higher Court upheld this verdict, and said:

"In maintaining a fire department, a city is exercising a governmental function, and a fireman, instead of being considered as an ordinary employe of the city, 'is in fact a public officer, and engaged in a governmental duty.' . . . A careful examination of the testimony convinces us that, in deciding the issues between the parties, the trial Court was correct in its conclusion that appellant (owner of motor-truck) is in law liable to respondent (fire chief) for the damages which he suffered as a result of the collision. . . . We conclude that persons in control of fire apparatus belonging to a regularly established fire department are not, in using the streets of their city in responding to fire alarms, bound by the speed limits fixed by ordinance for ordinary traffic."

The Law of Bailment

Bailment is defined as that branch of the law which relates to the duty of a person who agrees to safe-keep another person's property. The bailor is the owner of the property and the bailee is the party who keeps the property in his possession.

Also, it is important to know that any bailee is liable in damages for negligent loss or injury to goods which he keeps for another.

In a recent case, Lemnos Broad v. Speigelberg, 217 N. Y. S. 595, the Supreme Court of New York has aptly explained the rights and liabilities of a bailor and bailee by stating:

"The responsibility of a bailee, upon elementary principles, is for negligence. A bailee is not an insurer. A bailee, unlike an insurer, is liable only in the event of fault, neglect, or both. Because of the manifest difficulty of proof in so many of these cases, the law has come to be well recognized that in those instances of bailments, where the bailee has the sole, actual, undivided, and exclusive physical possession of the goods, the bailee is legally presumed to be negligent if, upon the disappearance or loss of the goods, he cannot explain their loss. This rule is based, like most rules of the common law, upon nothing more or less than common sense. It is a rule which is founded upon necessity. In other words, the common law, with its characteristic horse sense, makes a virtue out of necessity, growing out of the fact that, where the bailee has the exclusive and undivided possession of the goods, he must also have the exclusive means of showing what became of them."

Fireman Entitled to Recover Insurance on Dwelling

Another important point of the law is that a person, who willfully violates the terms of an insurance policy, is not entitled to recover payment in the event of a fire loss. However, the circumstances may be such that the Court will render the decision in favor of the insured who violates the provisions of a policy, if it can be shown that he acted in good faith.

For example, in Firemen's Fund Insurance Company vs. Hardin, 149 S. E. 318, it was disclosed that a fireman held an insurance policy containing a clause requiring that, in addition to immediate notice to the company of any loss of property insured, the insured should within 60 days after the fire, submit sworn written proof of the loss.

"The lower court held the driver of the truck guilty of negligence which proximately contributed to the accident and failed to find that the fire chief or his driver had been guilty of contributory negligence which would in law bar recovery against the owner of the motor truck. The higher court upheld this verdict."

The fireman's house burned and the day afterward he notified the local agent and subsequently he notified the company by several letters. However, none of these written communications were sworn to and the company refused to answer any of the letters. After the expiration of 60 days, the insurance company refused to pay the insurance on the contention that the fireman had failed to abide by the terms of the policy. However, the Court held the insurance company liable, saying:

"The policy itself is the most solemn notification possible of the imperative prerequisite of furnishing such proofs. It is there stipulated that they must be furnished as soon as possible after the fire, and this stipulation is a standing notice of the requirement. It stands to reason that this notice need not be reiterated by the insurer, nor any special attention of the assured called to it, unless the particular circumstances of the case render it necessary to fair and honest dealing between the parties. . . . There is no reason in law why the company could not be held to have waived all proof of loss just as completely as it could be held to have waived defects and deficiencies in the proof of loss. . . . In our opinion the insurer should not be allowed to take advantage of the plaintiff's (fireman's) plain and manifest ignorance governing the voluminous terms of the printed contract by refusing to answer his letters, especially so when it is shown that the company was specifically informed that its continued failure to answer would be construed to mean that nothing further was required."

Duty of Insurance Agent

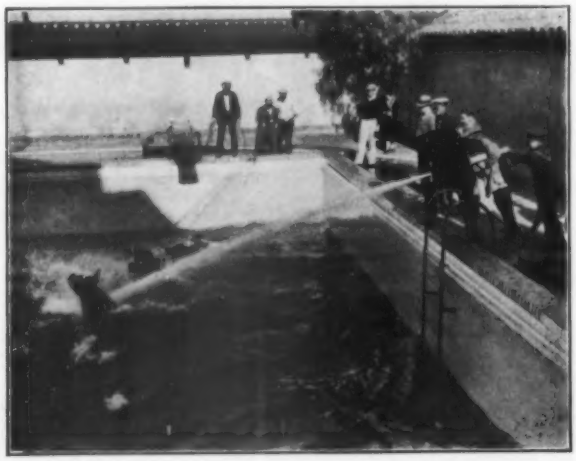
Generally speaking, all employes are legally bound to transact business in good faith for their employers. Moreover, the employer is liable for any loss or damage resulting from promises made to other persons when the employe is acting within the scope of the employment. The same law is applicable with respect to public officials who act in ministerial capacity. Also, an insurance company is liable for any loss resulting to the owner of property who informs the insurance agent of facts which in good faith the latter should have imparted to the insurance company.

In other words, when an insurance agent has knowledge of important facts regarding the policy or insurance he is bound to impart this information to the company, and if he does not do so the insurance company is deemed to have such knowledge.

For illustration, in Cornett vs. Farmers' Mut. Fire Insurance Association, 224 N. W. 524, it was disclosed that a property owner held a fire insurance policy. Later he obtained another policy from a different company which contained the following clause:

"Additional Fire Insurance without written consent from the Secretary makes this insurance void."

When the property owner made application for the latter policy he informed the soliciting agent that he held the prior policy. However, the agent filled the application blank incorrectly with the word "no" after the question whether the applicant had insurance in another company.



Now Firemen Are Called to Pacify Sea Elephants

Firemen have been called to rescue canaries, unlock bathroom doors and pump out cellars, but even the most cynical must admit that the job of pacifying two sea elephants placed in the same tank is an unusual assignment. They were part of a shipment of four, and were brought to Los Angeles from Mexican waters. Each consumes several hundred pounds of fish at one feeding and weighs from four to five tons. When two were placed in the same pool a terrific fight resulted. Firemen played the hose but were unable to effect a reconciliation and studio cowboys were called in to use a lariat. This brought results.

Sometime later the property burned and the company which issued the latter policy refused to pay the insurance claim on the contention that the insured had made a false statement in the application.

However, it is interesting to observe that the Court held the property owner entitled to recover the insurance, saying:

"If an officer or agent of the insurer, during the course of his employment, acquires any information affecting the risk or becomes cognizant of any breach of a condition precedent or of false or conflicting statements of the insured, his knowledge is imputable to the insurer, and this is true even though he does not in fact communicate his knowledge to the insurer or gives it erroneous information. . . . The rule is applicable not only where the agent is a general one, but also where he is a soliciting agent. . . . It is without dispute that the company, through its agents, Morean and Hamilton, at the time the application was made by Cornett (property owner) had knowledge that there was a policy of fire insurance covering the property and, by the action of its agent Hamilton in writing the word 'no' after the question as to other insurance in the application, waived the provision in the policy as to any prior or existing insurance."

Also, it is important to know that in the leading case of Hubbard & Spencer vs. Hartford Fire Insurance Company, 11 Am. Rep. 125, the Court said:

"The general principle of law upon this point may be stated as follows: In order to avoid a policy on account of a subsequent insurance against an express condition therein, it must appear that such subsequent insurance is valid and that the policy upon which it is made is capable of being enforced. If it cannot be enforced it is no breach of the prior policy."

Duty of Property Owner to Protect Firemen Against Injury

In the majority of jurisdictions the rule is well settled that, in the absence of a statute or municipal ordinance, a member of a public fire department, who, in an emergency, enters on premises in the discharge of his duty is a mere licensee to whom the owner or occupant owes no greater duty than to refrain from the infliction of willful or intentional injury. This point of the law was discussed in the recent case of Pincock vs. McCoy, 281 Pac. 371.

The facts are that a member of a municipal department who entered a building, fell into the open, unguarded, and unprotected driveway at the rear of the building, breaking a leg and sustaining injuries about the head and shoulders. He sued the owner of the building for damages contending that negligence on his part in failing to place guards or railings along the driveway, or to cause the same to be properly and sufficiently covered, and the common law duty to prevent injury to anyone rightfully and lawfully on the premises resulted in the owner's liability.

However, it is interesting to observe that the Court held the property owner not liable, stating the following important law:

"One on premises by invitation, express or implied, is an 'invitee,' whereas one who is there merely by permission or toleration is a mere 'licensee,' and, as to the former, the owner of the premises must use reasonable care, whereas to the latter he owes no greater duty than to avoid willful or wanton injury. . . . Under such circumstances a policeman or fireman goes on the premises by permission of the law. In the discharge of his duty to the public he may enter upon the premises in disregard of the owner's wishes. He is not an invitee.' He may enter whether the property owner is willing or unwilling, and his right to enter does not depend on the property owner's invitation, express or implied, but his entry is licensed by the public interest and what has been called 'the law of overruling necessity.'"

Knowledge of Liability Reduces Fire Hazard Call

Obviously, knowledge of any well founded method of eliminating fire hazards and its proper application, should prove valuable to fire marshals, and other fire department officials.

Therefore, knowledge of the established law that all classes of business persons, having in their control the property of others, are personally liable for negligent losses by fire should be used advantageously by municipalities to reduce the usual fire hazard, because if such persons are informed of their legal duties they are likely to provide themselves with efficient fire fighting equipment by the use of which, in many instances, fires can be quickly extinguished which otherwise may gain disastrous headway. The recent case of Traders' Warehouse Company vs. Shaw, 20 S. W. (2d) 248, clearly illustrates the plausibility of this method of reducing fire hazard.

In this case it was shown that a person, who owned and operated a storage warehouse, failed to equip the building with hose sufficient in length to reach from the hydrants to the various parts of the structure.

One night the watchman discovered a fire in the building which subsequently burned consuming the stored property owned by the warehouseman's customers, who sued the

(*Continued on page* 126)

A Loss of a Half Million Dollars Was the Result of Fire in This Market Building

Two firemen and a watchman lost their lives, and property valued at half a million dollars was destroyed in a fire which swept through this market building at Peoria, Illinois, last year. The entire fire department was needed to hold the fire, and that the blaze did not reach the tall building to the rear indicates the high calibre of work done by the department.

Foodstuffs and Fires

Produce Markets Make Hot Blazes When Fire Gets Away— Some Difficulties Which the Fire Department Must Face

THE first impression one secures on a casual inspection of wholesale and retail food markets is that there is very little material present that would contribute to a hot fire. Meats, vegetables, poultry products, and such, certainly cannot be considered highly combustible. Nor would the presence of a refrigerating system be of any aid in developing a hot blaze.

On the other hand, the construction of the building itself, the waste materials stored in the basement or elsewhere in the building, and the presence of fruit, vegetable and meat racks which are always on hand, have considerable bearing on the rapidity of spread of fire which invariably occurs in this type of establishment where the fire gets a good start.

Market buildings range from the poorest type of frame structure to the modern fire resistant building. The greater percentage of market buildings, however, fall in two classifications—frame buildings, and old brick buildings with wood interior construction. In the first case in addition to the rapid spread of fire there is present an additional hazard to the men represented by the inferior construction and the probable heavy loading of floors with produce in various styles of containers. This latter hazard is also present, although in a lesser degree, in the brick and wood joist type of structure.

Where materials are sold in less than case, barrel, or bag lots, somewhere within the building will be a large accumulation of highly inflammable packing materials such as crates, empty barrels, wooden baskets, and gunny sacks. Unfortunately, the depository for this collection of inflammables is usually the basement. Lighting facilities in that part of the building being inferior to the floors above, poor housekeeping is apt to add additional danger to this particular section. Where the heating plant is also placed in the basement, an ideal "set" is provided for a fire. Careless handling of ashes, careless placement of waste materials or carelessness on the part of smokers is all that is required to start the blaze. Once it starts, the basement is quickly involved, and the fire department has a real job on its hands.

In modern market buildings an additional hazard

to the men, as well as the property, is found in refrigerating plants. The majority of these plants are of the ammonia type, and a rupture of ammonia piping, ammonia storage tank, or compressor will quickly make the building untenable, as well as creating a situation which might mean the destruction of the building should the ammonia gas mix with the air and become ignited.

Thus an establishment, which at first hand appears harmless, may develop into one of the most difficult jobs the fire department may expect to encounter.

Ventilation

Due to the possibility of refrigerating equipment letting go, early ventilation is desirable, even though it is not needed in the actual operations on the fire. The first truck company reporting to the fire, after opening up for engine company, should dispatch two men to the roof at once to open over elevator shaft, hoist shaft, or stairwells, so that the atmosphere can be quickly cleared out and vent provided for ammonia fumes, should ammonia piping open up.

Further ventilation by opening windows is also essential. The usual methods are followed in this operation, namely, working with short ladders from the street or from fire escapes. Fortunately most produce markets are four stories or less in height so that the work of the department is considerably simplified.

If the basement of the plant is fully involved, and if the building is of fairly large size, no time should be lost in transmitting a call for additional apparatus.

Remember, refrigerating equipment is usually placed in the basement, and this is the point which deserves greatest attention in the early stages of the fire. In the event that the basement is fully involved, and it is not possible to reach the refrigerating equipment, then the ammonia therein should be released to the atmosphere if proper vents are provided, or should be mixed with water furnished by fire streams, if mixers are at hand. These devices are installed as part of the system, and have fire department siamese connection at the street. Hydrant or engine line is connected up to the mixer, and when ready, the valve communicating between the water pipe and the ammonia piping is opened, permitting the ammonia to flow out and become absorbed by the water. The water, after absorbing the ammonia, passes off to the sewer where it will do no harm.

If it is possible to reach the refrigerating equipment in the basement by ventilating and quick use of streams, this should be accomplished first in order that the fire department will not be subjected to the additional danger of ammonia leakage.

Occasionally this is not possible, the basement being fully involved and the fire beyond control of the department when the first apparatus arrives. In such cases, all efforts will have to be confined to holding the fire to the basement and men kept on the alert in the event that ammonia piping gives way. The liberal use of water where ammonia is present is good practice, first, because it will cool off the ammonia piping and reduce the pressure therein; secondly, water absorbs great quantities of ammonia and occasionally the concentration in the air can be kept to a safe point by the liberal use of water.

Insofar as extinguishing the fire on the upper floors is concerned, no unusual problem is presented to the department. It is merely a matter of wetting down burning woodwork. Rarely are any petroleum oils found in such markets, due to the fact that the presence of petroleum will taint cheese and butter, and hence this hazard is eliminated.

As a matter of precaution, the officer in command should keep on the alert to note the condition of floor supports, particularly where large quantities of materials are stored on these floors. In the case of old buildings converted into markets, floors were not originally built to sustain heavy loads, and while they may hold up under normal conditions, as soon as floor supports become weakened by fire, or become further overloaded by absorption of water from the fire streams, collapse of floors is possible.

Asbestos Suits Are Used for Hot Places

Asbestos suits are being used in London, England, to fight oil fires effectively, in addition to operating with foam streams. The boots as well as the buttons of the suit worn by the firemen are covered with asbestos.

Box 4 Associates Hold Banquet

The ninth annual banquet of the Box 4 Associates was held in the Hotel Warren, Worcester, Mass., on Jan. 18, the anniversary of the famous Knowles Building Fire.

President Otis C. White acted as toastmaster and the guests included Mayor M. J. O'Hara, of Worcester; Capt. William Carroll, Engine Company No. 1, W. F. D., President of the Worcester Fire Department Officers' Club; William E. Guertin, Superintendent of the Worcester Insurance Fire Patrol; Morey F. Orrell, Superintendent of Fire Alarms; George T. Richardson, Editor of the *Worcester Post;* "Sandy" Chapman, of the Gamewell Company; Chief Charles L. McCarthy, of the Worcester Fire Department; Deputy Chief Henry Douglass, W. F. D.; Deputy Chief Fred S. Taylor, W. F. D.; District Chief H. C. Amell, W. F. D.; John Horgan, Clerk, W. F. D.; and P. Hildreth Parker, President of the Box 52 Association, of Boston.

Addresses were made by Mayor O'Hara and Chief McCarthy both of whom praised the work of the Box 4 Associates and stated that the organization is of much assistance at fires, and by aiding the men of the Insurance Fire Patrol in spreading rubber covers, has helped to reduce the water damage.

There was a speech by "Sandy" Chapman which was followed by a vaudeville entertainment. The affair was thoroughly enjoyed by the many present.

HARRY BELKNAP.

Ft. Collins, Col., Chief Resigns—Chief R. R. MacGregor of Fort Collins, Col., has submitted his formal resignation. Advanced age has prompted Chief MacGregor to make this move.

Building Up Efficiency in the Volunteer Department

Politics Should Be Eliminated — Small Town Chief's Responsibilities — Not Well to Have Too Many Officers

By CHIEF H. M. TOPPING, Fire Department, Whittier, Cal.

WHILE the following paper sets a high standard for the volunteer fire department to follow, it is by no means an impossible one, and, in fact, there are many of the smaller units which live up to it.

The greatest disadvantage of a volunteer Fire Department is that it is usually commanded by a chief officer who is appointed on account of his popularity with the City Council, the politicians or other prominent citizens of this city, who may be the finest type of man yet wholly unqualified for the position on account of lacking fire prevention and extinguishing experience.

The fire chief of a volunteer department should have experience in fire department activities so as to be able to qualify to teach and drill his men in fire fighting and prevention.

Politics Should Be Eliminated

Another great factor in the volunteer department which should be eliminated is politics—there is no greater agency to disrupt an organization. Let this creep into your department and immediately it will cease to function.

The qualified chief officer must have the entire cooperation of each and every member of the Council and different heads of city departments, as well as every member of his department for a successful fire fighting force. Each and every man of his department should be appointed for his ability and not as a good favor from some other source.

The captains and lieutenants should be appointed for their ability to command and qualifications as firemen and not as a personal favor to someone for goodfellowship.

The question may be asked, "Why employ an experienced Fire Chief?" This may be easily answered:

Great Responsibilities of Small Town Chief

First: The chief officer of a volunteer department or small paid department carries a greater responsibility than our chiefs of larger departments. He has no assistant chiefs, divisions chiefs, or battalion chiefs to aid him in his duties. When he arrives at the fire he must assume command, direct the movements of his company both in and outside of building, look for and cover up all exposures where the fire could communicate to adjoining property, and safeguard the lives of his men from dangerous conditions. When he arrives at the scene of a fire and finds it beyond control of his small equipment and men responding thereto, he is not in a position to call additional apparatus or men, or in fire department terms pull a second or third alarm for more help, as his entire department responded on the first and only alarm and must fight it out and do his best no matter at what disadvantage.

Nine cities out of ten have only one company, when in justice to the Chief there should be at least two or more. His alarm system consists of a telephone call with no call boxes or other available alarm systems. Consequently take a fire in the early hours of the morning discovered by someone who happens to be passing at this time and by the time he travels from a block to a mile to the fire station to give the alarm the fire has grown from a small blaze which, had the department been quickly notified, could have been extinguished with a small loss, but, owing to delay in reporting the fire on account of no available phone, it has perhaps gained great headway, resulting in a serious loss to property and perchance to life.

Chief Should be Experienced Fireman

Second: The Fire Chief should be an experienced fireman, qualified to drill his men in the care of apparatus and equipment, the use and disabuse of water, fire axes, pike poles and other fire equipment. Let us take for example, the undrilled and inexperienced fireman handling a line of hose:

Place a charged line of hose in his hands and his thoughts are only to extinguish the fire. Let us demonstrate his actions, at say, a fire burning in the rear and inside of a store filled with merchandise on shelves, counters, etc. He immediately opens his pipe and rushes from the front of store to the rear, knocking goods from the shelves and wetting all merchandise in his road so as to reach seat of fire. Thus he does more damage with water than, perhaps, the fire would have done had it burned for some time. On the other hand, let us follow the actions of the trained and experienced man, under the same conditions: as soon as the hydrant is turned on, he opens his pipe to allow the air to escape, bringing the water to his pipe, which he then immediately shuts off. He then proceeds to force an opening in the store, taking a little does of smoke and hot air in so doing, pulls his line to the rear or the seat of the fire, and possibly extinguishes it with a pin stream or half open pipe, doing as little damage with water as possible.

Proper Use of the Fire Axe

Now, for one of our most valuable, yet mostly abused tools, the fire axe. Place a fire axe in untrained and inexperienced hands and it immediately becomes a tool of destruction, as, for example, a fire burning in a door or window casing, a mop board, etc. The inexperienced truckman immediately proceeds to chop through woodwork and plaster and all else in his way to get at the fire, while the experienced truckman would remove the casings with the blade of the axe, taking away lath and plaster with the pick end and extinguish the fire, doing little damage. Place the same men under an experienced Chief, who has drilled them in the use of the tools, and the good effect will be far greater, the department receiving greater credit for the work.

More Practical Drills Needed for Volunteers

The volunteer departments usually have a meeting or drill at least once or twice a month which usually consists of running out apparatus, leading out, hooking up to hydrant and passing water, timing the operation or in other words each member trying to outdo the other fellow in making time. This, as far as it goes, is well enough, but in my opinion, we overlook the important part of the drills. Would it not be far better if we changed this program and would we not receive far better results and make for a better de-

> "The qualified chief officer must have the entire cooperation of each and every member of the Council and different heads of city departments, as well as every member of his department, for a successful fire-fighting force. Each and every man of his department should be appointed for his ability and not as a good favor from some other source."

partment if the drills consist of placing ladders to roofs; carrying a charged line to roof; a dry line; strapping in a charged line; working a charged line from ladder; opening a roof; ventilating a building through roof, skylights, windows and doors; lay a reverse line to and from fire; amount of hose to lay at fire; when and how to use a two and a half line; a one and one half inch line, and when and how to siamese lines in different layouts, with the advantages of so doing. Schools of instruction as to back drafts; placing of proper ladders and distance from building; use of roof ladders; pike poles; pulling ceilings properly; use of chemicals; what to look for on inspection as to fire hazards; first aid treatment; use of life saving apparatus, and in fact establishing a fire college on a small scale in your own department will keep the members of your volunteer companies interested and will be the making of a very proficient fire department.

Mistake to Combine Fire Department with Others

One of the most common mistakes practiced in our small cities is the combining of the fire department with the police, building, street or electrical inspection and placing the same under the one head or chief officer. The most common combination and farthest apart is the combining of the fire and police departments under the command of one head. The two departments are so different as to routine, that it is impossible for them to function as they should and give the same service for which the tax payers are obligated to pay for. As for instance the chief of police has more everyday routine business to attend than the fire chief, consequently one or the other of the departments is compelled to run itself which usually is the fire department. When the two departments are combined the police chief as a rule delegates the important duties of the fire department to some subordinate who is unqualified in the first place to assume the duties and who is usually employed in other city duties requiring a certain amount of time each day to complete. Consequently his interest in his fire department becomes lax and his Chief, having practically all his time occupied with his other department duties, naturally the fire department is in the discard until an alarm of fire happens; then with neglected apparatus and men, the department works backwards and receives a black eye from our local papers. Fire hazards have accumulated; commercial buildings are erected without any member of the fire department knowing just what fire hazards are contained therein, how the department can enter or leave the building in case of fire, location of gas shut offs, electric switches and all that goes to make up a complete inspection and safety operation of the department, in case of need and all the department should know about building is completely lost.

All Promotions Should be by Merit Only

All promotions such as assistant chief, captains or lieutenants should be made for merit only and not on account of goodfellowship, using no partiality in the selection. This is the only way to have harmony and co-operation from all members of the department, as without co-operation a department soon begets stagnation, which in a short time spells dissolution. A successful department is one commanded by a chief officer who has the co-operation and good will of each and every member of his department; who issues his orders with dignity and then insists that they be obeyed.

One of the greatest disadvantages of a volunteer department is the time required for the men to reach the location of the fire after the usual alarm has been sounded from fire station, and it is a well known fact that time is the essence of all fires. A company of drilled men, say three or four on the apparatus, who respond immediately upon the sounding of an alarm will accomplish more in less time than a dozen untrained men who have to respond from their homes or shops.

Not Well to Have Too Many Officers

Another disadvantage of a volunteer company is that there are too many officers. It is a common occurrence at a fire to hear "Hey! Hit her here!" and then another voice, "Hit her there!" The consequence is that the men begin to pull in opposite directions or in other words have a tug of war between themselves with the fire still reaching for the sky. Take on the other hand the experienced chief and company: the chief has his plans of attack well in hand and issues his orders and his trained men do not question his orders but obey them. The inexperienced man thinks the chief mistaken and immediately uses his own judgment, never mindful of the result. The whole secret of success hinges on organization, drill and experience.

Another disadvantage to our volunteer departments is that usually the chief officer is appointed or elected by the members. He draws no pay practically from the city and must devote his time in other channels for his livelihood, consequently cannot give his department the time that it should receive for its betterment. The same applies to the volunteer members; they must earn their support in other occupations therefore cannot devote the time that is necessary for the making of a proficient fire department.

(From a paper read before the convention of the California Fire Chiefs' Club, at Catalina, Cal.)

The Latest in Foreign Apparatus Design

A new type fire engine has been introduced in Berlin, Germany. Its chassis is similar to the early tanks used in the Sahara by the French army. It is used to combat conflagrations in the rural suburbs of the German capital.

Murphysboro Wins First Aid Cup

The first aid team of the Western United Gas and Electric Company in Murphysboro which was organized and trained under the leadership of Chief Albert Herring, won first place in a district team contest for speed and exactness in safety emergency work.

Each of the contestants had to give three demonstrations. The first test was to demonstrate the prone method of resuscitation. The second problem was a demonstration of how best to take care of a person severely burned from the waist up. The Murphysboro team accomplished this in one minute and five seconds. The third test was to demonstrate how to give emergency aid to a person whose spine had been injured. This required very careful bandaging and the strapping of the patient to a make-shift carriage. The evolution was performed in one minute and fifty-seven seconds. The next safety contest will be conducted in Murphysboro.

Walsh Honored by Box 52 Association

H. E. Magnuson, editor of the *Factory Mutual Record*, was the speaker at the January meeting of the Box 52 Association held in Boston, Mass. His subject was "The Cleveland Clinic Disaster." The talk was illustrated with lantern slide views.

Lieut. J. Dana Richardson, of the fire department of Billerica, Mass., showed motion pictures of some Lowell fires and of a hunting trip. Fireman William J. Corbett, of Engine Company No. 2, Lowell, assisted in explaining some of the Lowell pictures.

Among the guests were Chief Selden R. Allen, of Brookline; Chief William C. Mahoney, of Peabody; Chief Fred Clark, of Attleboro; Chief Bartlett, of Billerica; and Asst. Chief Gilman S. Alcott, of Lowell.

President P. Hildreth Parker was in charge of the meeting. Plans were discussed for a contemplated trip to Montreal. Supt. Peter E. Walsh, of the Boston Protective Department, was elected to honorary membership in the association.

HARRY BELKNAP.

Mohawk, W. Va., May Buy Apparatus—Petitions are circulating in Mohawk, W. Va., to issue $12,000 bonds for the purchase of fire apparatus. A special election may be called at an early date.

THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

THE Germans have a most expressive saying, "Ich dien," meaning "I serve." It can readily be adapted to fire department work for there is no other city department so trained to serve the public at all hours of the day, regardless of weather conditions or physical handicaps.

To widen their field of duty, members of fire departments have been drilled in first aid work. The men are qualified to bridge the gap that intervenes between the time an accident occurs and the moment that the patient can be removed to a point where medical aid is possible. They are expert in the prone pressure method of resuscitation, bandaging, treatment for shock, burns, bruises and so forth.

In many departments, the men have acquired this knowledge on their own time.

The question treated in this issue is printed in the box on this page. In the box on the following page is the problem that will be discussed in the next issue. Should you have comments you would like to make on the next question or if you have a problem you would like to see treated in this department, write to the "Round Table Editor," FIRE ENGINEERING, 225 W. 34th St., New York, N. Y.

HERE IS THE PROBLEM

Do you train the members of your department in first aid work?

Do you consider such training essential to the modern fire department?

What equipment do you consider necessary in fitting out the department for first aid work?

The Question

There appears to be no doubt concerning the value of training firemen in first aid work. Many chiefs have reported that such knowledge has been the means of saving many lives, especially in the summer during the bathing season. The replies received follow:

Thos. J. McCarrick, Chief, Revere, Mass.: The members of our department are trained in the various branches of first aid treatment. Recently forty-five members of the force completed the prescribed "Red Cross Course" and after passing examinations received the authorized "Red Cross" certificates. In the near future the ambulance operators will take an advanced course.

A fire department is generally classified and recognized as a public safety organization, and in view of that fact, I believe that the members thereof should have at least an elementary knowledge of first aid treatment. The work is in reality an essential part of their duties, while of course not the principle function. It is a matter of common knowledge that firemen are called upon to render aid in the event of most any emergency that might arise and they certainly should be trained to render some material service during such periods when the lives and property of people are endangered.

Our department operates a first class and fully equipped ambulance. In addition to this each piece of fire apparatus is equipped with an approved first aid kit. Two pieces are equipped with stretchers, four pieces with gas and smoke masks and a rescue company will soon be put into service and equipped with various first aid appliances and an inhalator.

First aid instructions and practices are included in our drill school evolutions and on several occasions the men have rendered valuable treatment when onlookers knew not what to do.

Frank Charlesworth, Chief, Providence, R. I.: During the month of October 1927, Dr. Hartzell of the Red Cross came to Providence and gave instructions in first aid to a number of members of this department. These members, in turn, gave similar instruction to others of the department, so that the entire personnel has been instructed in first aid.

I consider such training essential to the modern fire department, not only to the fire department but to any other department of the municipal government or any organization employing a large number of persons. A knowledge of first aid principles is always desirable in case of accident.

The kit supplied includes everything necessary for first aid. In view of the fact that an ambulance, properly manned, responds to all second alarm fires, certain equipment which might otherwise be considered necessary is omitted.

In order to make this effective, practice in first aid principles should be carried on from time to time and should include immediate training of all new members entering the department.

Thos. J. Nicholas, Chief, Camden, N. J.: The members of my department have a much brighter idea of the fire game than I had upon entering the Bureau. But they should have. We are living in a modern age and of course that means "on our toes." In the year 1924 two captains were assigned and placed in the Philadelphia Fire School for the same training a rookie receives on entering the Bureau. During the course they made the rounds of all stations, taking in both platoons and repeating the course of first aid instruction. My men all have a knowledge of the training followed in Philadelphia. All new members entering the department are under the supervision of the captain of the company to which he is assigned and the necessary training in first aid, care of apparatus and tools, is provided.

On all second alarm fires and over, two hospital ambulances, police and fire surgeons, doctors, nurses and Second Alarmers fully equipped with first aid kit and stretchers, respond. These men are fully instructed in first aid work, and I believe that if every department were as well fitted as that of the City of Camden, great accomplishments will have been made for this wonderful cause.

Chas. A. McGinley, Chief, East Orange, N. J.: All members of this department are trained continually in first aid work, in fact it is part of the training school course of this department. Ninety per cent of the membership of the department have received certificates from the Red Cross, earned by attending the lectures prescribed in this work by that organization, and earned by passing qualifying examinations.

I consider such training essential to the modern fire department because I always believe that firemen should be in a position to handle emergencies without delay, and emergencies confront fire departments almost daily. Such courses of training do not impose a burden on the individual, and is often the means of saving a life that would probably have been lost if firemen were untrained in this work. Some of my men have had the occasion to help save lives during the swimming season while off duty at the seashore.

The equipment necessary for first aid work is: An inhalator, emergency first aid kits, bandages, stretcher, blankets, heating pads, etc. Training in artificial respiration is the most essential because a life can be saved in cases of drowning, and without any equipment if artificial respiration is given immediately and properly.

C. W. Ringer, Chief, Minneapolis, Minn.: Members of this department receive training in first aid. All companies carry first aid kits. The work that is performed by our squad company each year, is sufficient proof that the modern fire department should be trained in first aid, not only because this service can be rendered to the public, but also whenever members of the department meet with accidents, they will be properly cared for.

I consider standard first aid kits as necessary equipment in fitting out the department for this work. There should be a first aid instructor capable of instructing members of the department in first aid work.

H. M. Topping, Chief, Whittier, Cal.: I consider life saving and first aid work one of the most important branches of fire department duty. As to equipment for first aid work, there are several points to take into consideration, one of which is the manual strength of the department, and secondly, the apparatus available. Our larger departments are able to equip and maintain a separate corps of officers and men for this work, while the majority of departments do not have sufficient men or apparatus to carry out this work on an extensive scale. For the smaller departments the equipment should contain: An inhalator, complete first aid kit for treatment of burns, cuts, or minor injuries, splints for broken bones, tourniquets for bleeding, etc. All members of the department should be well trained in artificial respiration, binding of wounds, placing of splints to protect broken bones or fractures, binding to stop bleeding, care in handling injured persons, etc. Each member of the department should know where to call a doctor at any hour of the day, and with the least possible delay.

Daniel H. Shire, Chief, Mason City, Ia.: All members of this department are instructed in first aid work, and are required to have not less than one hour each week of first aid drill and training. Once each year, all members are examined by the local Red Cross examiner to see whether or not they are qualified in standard first aid work. Those members who show exceptional adaption for this work are given the advance Red Cross course, and should they pass same, are permitted to wear the National Red Cross insignia on their right arm. This department has fifteen men who are permitted to wear this insignia so long as they retain their qualification in the advance course. Five of the above mentioned fifteen men (four men and an officers) on each shift are assigned to Combination Co. No. 1 and respond to all rescue and first aid calls. This crew is the pick of the department in first aid work.

I do consider first aid training essential to modern fire department operation.

Our equipment consists of an inhalator, gas masks and a standard first aid kit. We use the salvage covers for stretchers—men are trained to use available equipment with them or on apparatus.

Daniel F. Sennott, Chief, Boston, Mass.: The members of our three rescue companies have received instructions in first aid from the American Red Cross. Members in general are not instructed in first aid.

While, of course, a knowledge of first aid is useful, it is not particularly necessary in our department, as an ambulance responds to multiple alarms, manned with a doctor from a city hospital. All members are, however, instructed in the prone pressure method of resuscitation.

Every ladder company in the department is equipped with a medicine chest in which is carried a supply of simple home remedies. These medicine chests are for use chiefly by members of the department, but are also available to doctors at fires in emergency or in company quarters.

Albert Herring, Chief, Murphysboro, Ill.: My men are given training in first aid work. I believe it to be very essential and should be a part of every fire department's work. The men should be trained so as to be able to handle emergency cases such as gas poisoning, electric shock, drowning, etc. The principles of operation of the inhalator and artificial resuscitation should be taught.

Equipment for such work should include: standard first aid kit containing bandages, splints, and a general supply of remedies as used in emergency cases; also inhalator.

HERE IS THE PROBLEM FOR THE NEXT ISSUE

Do you consider Pompier ladder drills and Pompier ladder work really worth while in the modern fire department?

Do you ever use Pompier ladders in fire fighting and life saving operations?

Have lives ever been saved by their use in your department?

D. M. Hudson, Chief, Chelsea, Mass.: The members of our department have been receiving instruction in first aid work for quite some time. Classes in this work are conducted daily by the Red Cross in the various fire stations.

Situated such as we are here, with many hospitals easily available, first aid work is not as important as it might be in places more isolated and not situated so favorably as we are to receive professional medical services.

The equipment necessary for first aid work in my opinion should include material for purposes of bandaging cuts and wounds characteristic of the fire service, as well as a general supply of preparations for preventing infection.

L. R. Morris, Chief, Ames, Ia: All members of my department are trained in first aid and all men that have been in service for one year have passed an examination in same and received his certificate.

I believe every fireman should have first aid training, as they are called to render assistance in many accident cases. In fact we have been called when a doctor could not be immediately procured, to give first aid treatment.

Our first aid kit is well equipped to handle any case until a doctor arrives or the patient can be removed to a hospital.

Jack Ary, Chief, Drumright, Okla.: First aid instruction is one of the several courses given by our State Firemen's Association in convention each year. We always try to have as many of our boys as possible attend these schools, such training being augmented by home classes. We consider this training very essential to all fire departments. The only equipment we carry to fires is bandages and some approved remedy for burns. An inhalator should also be on hand.

J. K. Sargent, Chief, Huntington Beach, Cal.: Our men are trained in first aid work. As we have a city beach, the fire department is often called on to take care of drowning cases. Response is also made to other emergency calls. Our equipment consists of a standard first aid kit, stretcher, and inhalator. The above equipment has proven adequate for our needs, and we have not endeavored to add thereto.

J. F. Mertz, Chief, Akron, Ohio: I have 191 men in my department and all are trained in first aid work, including the prone pressure method of resuscitation. To date we have to our credit the saving of twenty-three lives.

First aid work is taught in our fire department school, and we employ Red Cross equipment.

It is the purpose of the fire department to protect and save the lives and property of its citizens.

Tom Graham, Chief, Corvallis, Oreg.: I train all members of my department in first aid work, and consider such training very essential to the modern fire department.

The equipment I consider necessary is as follows: One standard first aid kit containing both roll and triangular bandages, tourniquet, compacts, iodine or mercurochrome solution, picric acid or oil solution, an assortment of small splints, etc., a stretcher, and by all means an inhalator.

We have an ambulance connected with our fire department, and render a great service with this piece of equipment.

Wm. H. Wayand, Chief, Scotia, N. Y.: I do consider train-

(*Continued on page* 125)

WITH THE EDITOR

Safeguarding Penal Institutions From Fire

The various states and the United States Government are beginning to officially recognize the fact that their penal institutions are far from what they should be from the fire hazard standpoint. The comparatively recent outbreaks in such institutions in various portions of the country have, undoubtedly, contributed largely to the consideration by those in authority of the subject of lessening the peril from fire that is imminent in many of these prisons, especially in those of the older and less modern type.

One of the most recent of such reports has been prepared by the National Institution of Public Administration of New Jersey. According to this report, many of the prisons and reformatories of the state are in lamentable shape, as far as fire safeguards are concerned. In one institution specifically mentioned, "wooden construction of partitions, stairways, stairwells and floors has been permitted," making a most serious fire hazard. In others, fire escapes are found to be faulty in construction and allowed to be obstructed. In one instance the entrance to the fire escape was found to be "covered with nailed on screening."

That many other states and also the National Government have been remiss in allowing their institutions to remain in such hazardous conditions, endangering the inmates seriously in case of fire, is well known, and has been pointed out in several instances in official and unofficial reports. These matters will likely be corrected in the natural course of events by the erection of modern and fire resistant buildings to replace the older ones. But this fact should not prevent the abolition of the more serious hazards now existing, by, if necessary, the premature rebuilding of such institutions as are considered to be most hazardous. By so doing the national and state governments will protect themselves from the onus of neglecting the safety of those who are involuntarily confined in such institutions.

Trade Their Fire Apparatus For Fifteen Coats

When the Chief of a mid-Western volunteer fire department offered the $8,000 fire apparatus of his fire company to the village council in consideration that it furnish the company with rubber coats to the number of fifteen, worth $6.75 each, it looked like a rather one sided bargain for the municipality, until the matter was explained. When the Chief told the council members the coats of his company principally consisted of rags, the fifteen new coats were promptly voted. Then the fire department executive offered the village its new apparatus, and the offer was promptly accepted. The secret of the unusual transaction was soon after revealed.

Under a new law, the members of the fire department were entitled to compensation in case of injury only if they served within the boundaries of the village. When called upon to fight fires in the outlying territory they did so at their own risk, as the apparatus was the property of the company and not of of the village.

The knowledge of this fact came about when the company served notice on the various townships surrounding the village that the company would no longer respond to fire alarms unless a fee of $50 for the first hour and $25 for each additional hour in service was guaranteed by the township, or an equivalent contract of $300 per year were entered into. Most of the townships agreed to one or the other of these terms, and it was then discovered that, while the company had the right to enter into such agreements, its members had no claim to the state compensation fees in case of accident, while performing such out-of-town service.

The law provides that township trustees may make contracts for protection with the official bodies of other "townships, villages or cities." The company was "unofficial," and thus was barred from making such contracts.

By turning over the apparatus to the village, the company becomes the official fire organization of the municipality, the men are paid for fire service by the village, and are thus entitled to compensation for injuries under the state law, when performing out of town service. So the company did not make such a bad bargain after all when they traded their apparatus for fifteen coats.

Excellent Suggestions by Housing Committee

Some very excellent and practical suggestions were made recently by a committee appointed by Mayor Walker of New York City to study the revisions of the new multiple dwelling law for that city. In fact, the recommendations showed a careful study of the conditions and a sincere desire to improve living conditions in the big city, as far as the elimination of the fire hazard is concerned.

One of the recommended alterations in the law

included the requirement for a fireproof enclosure for all boiler rooms in apartment buildings, with no physical connection with the floor above. No gas meters would be permitted in such rooms or in the halls of apartment buildings erected after the regulations become law. The placing of a frame building on the same lot as a dwelling converted into an apartment house would also be prohibited.

Other requirements would be the compulsory provision of a separate passageway leading to a building on the same lot and in the rear of an apartment house, and the providing of at least one window opening on court or street, in all cellar apartments. Also single entrahce and vestibule doors are to be of the required width of at least three feet. Stair or fire tower rails, according to the recommendations, must be two feet nine inches in height. In structures not heated from a central system, every fireplace or stove would be required to have a separate flue.

Safety from monoxide gas poisoning is guarded against in the proposed regulations by a provision for an opening near the floor in all small garages in the rear of lots.

These and other provisions of safety, while not over onerous on the property owner, are all in the direction of fire safety and show that the committee is alive to the needs of the situation in the big city. If these recommendations are incorporated in the new law and it is passed by the legislature, the housing conditions in New York City should be materially improved.

Irish Society Honors Kenlon

John Kenlon, head of the New York Fire Department, was elected President General of the American Irish Historical Society at its annual convention in New York City.

Chief Kenlon is at present recovering from an illness which has kept him from duty two or three weeks. He is gaining his health rapidly and is expected back on duty soon.

Milwaukee Leads in Pay for Chiefs

Milwaukee in paying its chief $6,000 a year leads in the salary paid fire chiefs in Wisconsin, according to a survey made by the Municipal Information Bureau of the University Extension Division, University of Wisconsin.

Seven cities pay their fire chiefs $3,000 or more, twelve cities have no paid chiefs. Kenosha pays $4,000, Racine and Green Bay, $3,000, Madison $3,300, Superior $3,180 and West Allis $3,000.

No salaries are paid by the following cities all under 5,000 population: Adams, Brodhead, Durant, Elroy, Fennimore, Glenwood, Hartford, Horicon, Hudson, Lake Geneva, Prescott and Whitewater.

Lewiston, Me., Demonstrates Ladder—A public demonstration of the new aerial ladder purchased by Lewiston, Me., attracted a very large crowd.

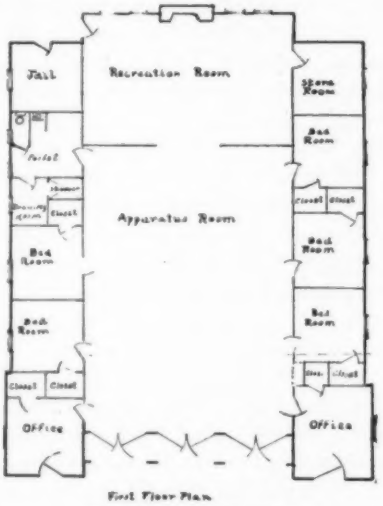
Charlesworth Re-Elected President—Chief Frank Charlesworth of Providence, R. I., was re-elected President of the Fire Chiefs' Club of Rhode Island at the annual meeting held in Providence. This will make his third term as President. Chief Augustine J. Cote, of Woonsocket, was elected First Vice-President; Elmer Capwell, Coventry, Second Vice-President; Thomas V. Daley, Pascoag, Secretary; Clarence E. Cook, Harrisville, Treasurer; Directors: Charles C. Rounds, Warren; Eugene Parenteau, West Warwick; Daniel F. McLaughlin, East Providence. At present the club has 147 members in good standing.

INDEX TO VOLUME LXXXII

The Index to Volume LXXXII, FIRE ENGINEERING, from the January 9 to the December 25, 1929, issues, is now off of the press, and will be mailed to readers on request.

Roswell Has Attractive Station

An attractive fire house is in use in Roswell, N. M., designed by Chief Rue Chrisman of the Fire Department. The station is sixty-six by fifteen feet and is sectioned off, as indicated in the plan, for an apparatus room, store room, recreation room, six bed rooms, two officers' rooms, toilet and a small jail. The recreation room is back of the apparatus room.



Floor Plan of Station

The apparatus room is thirty by thirty-eight feet and has ample space for three pieces of apparatus. On each side of the apparatus room are the bed rooms and officers' quarters. Each bed room measures ten by ten feet and is provided with a large closet. The recreation room is 18½ by thirty feet and is fitted with a large fireplace at the rear.

All alarms are received by telephone. There are four four-inch bells located in the apparatus room and connected to the fire telephone. There are also lights in the room. The bells and lights are controlled by separate switches.

Exterior of Fire House Erected in Roswell, N. M.

Johnson Creek, Wis., Buys Apparatus—Fire apparatus to be used in fighting rural fires, and costing $3,600, has been delivered to Johnson Creek, Wis.

Wisconsin Buys Forest Protection Apparatus—Wisconsin has purchased ten one and one-half ton Chevrolet trucks to add to its fleet of cars for forest fire protection. Five of the trucks were delivered to Rhinelander. The equipment consists of one 250-gallon tank, one light power pump, two thresher pumps, 1,500 feet of hose, twenty round point shovels, eight 5-gallon back packed tanks, one cross cut saw, three lanterns, and other tools. The trucks delivered are part of an order for twenty-four machines placed by the state.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

Protecting Extinguishers Against Freezing

To the Editor:

Will you kindly answer the following question:

What proportion of calcium chloride must be used in mixing solutions for soda and acid type extinguishers and amount used in water pails and barrels exposed to freezing temperatures? Also give any other non-freezing solution which may be used.

Thanking you for this information, I am,

J. R. L.

Answer: The only known means of protecting soda and acid extinguishers from freezing is to provide suitable heated cabinets, plainly marked, of course. An experiment made by the Underwriters' Laboratories demonstrates the undesirability of adding calcium chloride to the soda solution of hand fire extinguishers. Calcium chloride, when added to water in fire pails, barrels, etc., is an effective agent for reducing the freezing point. The normal charge of the soda and acid hand fire extinguisher, however, has sodium bicarbonate in solution. The addition of calcium chloride to this solution at once results in a reaction producing calcium carbonate, carbon dioxide gas and salt in solution. In the experiment referred to, five pounds of calcium chloride were added to the normal soda solution and an attempt made to discharge the extinguisher. The reaction of the sulphuric acid with the salt solution and the calcium carbonate precipitate was not sufficiently rapid to build up pressure within the extinguisher, the indicator of a pressure gauge connected to the cap remaining at zero through a period of over ninety seconds while the liquid contents were draining through the hose. Addition of calcium chloride renders the extinguisher practically inoperative.

As far as the action of calcium chloride to water pails and barrels for reducing the freezing point is concerned, the following proportions should be employed:

Freezing Point of Calcium Chloride Solutions

(75 Per Cent Grade of Calcium Chloride)

Pounds per gallon .	3.76	3.36	2.95	2.56	2.18	1.80	1.43
Freezing point, Deg. F.	32.6	19.5	8.7	0	7.5	13.3	18.5

A Poor Fire Supply

To the Editor:

There is an industrial plant located about 5,400 feet from the outskirts of this city. Water supply is furnished to the industrial plant by a 6-inch main of approximately that length, fed by a 10-inch main within the city. Four two-way hydrants are provided in the neighborhood of the plant, and all are attached to the 6-inch line.

In the event of a fire necessitating the use of several streams, how many effective streams could we figure on securing from this main? The pressure within the city is 54 pounds, which pressure is maintained at all times.

L. F. P.

Answer: The friction loss in the 6-inch pipe where 240 gallons per minute is flowing, the pipe being in fairly good condition, is 4.3 pounds per 1,000 feet, or 23.2 pounds for 5,400 feet. As 250 gallons per minute is considered a satisfactory fire stream, the 5,400 line of pipe would supply but one such stream, assuming that the pipe is in good condition. Were it desired to take two streams from hydrants in the neighborhood of the plant, then the flow would have to be in the vicinity of 500 gallons per minute. Under these conditions the friction loss per 1,000 feet of pipe would be around 17.4 pounds, and for 5,400 feet of pipe it would be 216 feet head or approximately 94 pounds friction loss. As we have but 54 pounds at the hydrant, we cannot of course overcome 94 pounds friction loss in the pipe line and deliver water at the other end. Hence one stream is the limit which this pipe layout can supply, assuming a satisfactory fire stream to be 250 gallons per minute.

An Emergency Suction Main

To the Editor:

One section on our island, being recently built into a hotel district, gives us very much worry owing to the limited water supply in this section, there being only one 6-inch main to supply the fire service.

To overcome this condition, it is my plan to try and secure money enough to lay an 8-inch pipe with protected and screened end into our harbor with double steamer connection at the street, which I believe would allow me to place two pumps to draft—one 750 and one 600 g.p.m.

The pipe line would be about 300 feet long with a lift of not more than 10 feet at low water.

I am seeking your advice as to whether or not you think this set-up would be practical. Has the length of my pipe any bearing in drafting, the lift over all being, as I stated, not over 10 feet?

I would appreciate your advice on the above.

Respectfully yours,

W. J. B.

Answer: The layout you suggest for drafting water from the harbor would be impractical. Here's the reason: Before a pumper, placed 300 feet from the suction, could expect to receive water it would have to exhaust the air out of the 300 foot line, which would be no mean task. As air expands when the pressure on it is reduced, you'd find it quite a lengthy job to exhaust sufficient air from a 300 foot line of 6-inch pipe to lift water 10 feet high at the end. We would not say it could not be done, but your pump would have to be in mighty fine shape, and you'd have to race it for quite a long period of time before water could be brought into the line by suction.

Were it possible to keep the line fully charged with water at all times, the plan would work, but it would be quite a difficult task to keep your valves air tight so that air would not enter the line and permit water to retreat into the harbor.

Solution of a Complex Layout

To the Editor:

In regard to the solution offered by J. T. in your issue of December 11, I suggest the following method as that generally used in fire department hydraulics. Problem: What is the nozzle pressure with an engine at 200 pounds pumping through 500 feet of 3½-inch hose to a 3-way connection with one line of 2½-inch 200 feet long with a 1¼-inch nozzle, a line of 2½ inch hose 300 feet long with 1¼-inch nozzle, and a line of 2½ inch hose 400 feet long equipped with a 1⅛-inch nozzle?

Answer: First find a nozzle equivalent to two 1¼-inch nozzles and one 1⅛ inch nozzle by squaring the diameters, adding the totals and extracting the square root. Nozzle size thus obtained is 2.09-inch diameter. Factor for same

is 2.09 x 2.09 x 2.09 x 2.09 ÷ 10 = 1.9. Average the 2½-inch lines: 400 + 300 + 200 = 900 ÷ 3 = 300 feet. Reduce to a single line of 2½-inch hose: 300 ÷ 7.75 = 39 feet of 2½-inch hose.

Reduce 3½-inch hose: 500 ÷ 5.8 = 86 feet of 2½-inch hose. 39 + 86 = 125 feet of 2½-inch hose.

$$\text{N. P.} = \frac{200}{1.1 + 1.9 \times 2.5} = 34.2 \text{ pounds}$$

Discharge is 2.09 x 2.09 x 29.7 x $\sqrt{34.2}$ = 765 gallons per minute.

To find pressure at 3-way connection use formula 2 x Q x Q + Q (Q = 7.65). 7.65 x 7.65 x 2 + 7.65 = 124.5 pounds friction loss in 100 feet of 2½-inch hose.

Equivalent of 86 feet of 2½-inch hose to 3-way connection: 124.5 x .86 = 107 pounds. 200 — 107 = 93 pounds at 3-way connection.

Deduct 8 pounds for pressure loss at 3-way connection: 93 — 8 = 85 pounds. (Allowance for 2-way siamese with an 800 gallon flow is 5.5 pounds. 5.5 — 2 = 2.75 x 3 = 8.25)

Has Underwriters' formula for nozzle pressure on the 2½-inch lines. With 85 pounds at the 3-way connection, pressures at the three nozzles are as follows:

1¼-in. nozzle on 200-ft. 2½-in. hose — 40 lbs. — discharge .....292 gals.
1¼-in. nozzle on 300-ft. 2½-in. hose — 33 lbs. — discharge .....265 gals.
1¼-in. nozzle on 400-ft. 2½-in. hose — 35 lbs. — discharge .....221 gals.

Total 778 gals.

Using this method the discharge and pressures check up quite closely; however, it is apparent that the pressure and delivery is well beyond the means of any ordinary engine, as they are not expected to deliver more than one-half their rated capacity at 200 pounds pressure, but the same problem could be correctly applied to a high pressure hydrant.

Respectfully yours,

L. S. C., Buffalo, N. Y.

Editor's Note: Your solution is entirely correct, and goes into further detail than commonly required. For example, after determining diameter of combined nozzle, you use this diameter instead of the nearest standard nozzle diameter. In this manner your solution is productive of more accurate results than would be secured by usual methods.

Minors in Fire Departments

To the Editor:

What is the law governing the employment of minors as members of volunteer fire departments? Must the consent of parents be obtained before such minors can be accepted?

I will appreciate your advice on the above.

C. B.

Answer: I have reviewed several higher court cases but have found none which involve this subject relating to municipal fire department employes. However, you may inform your correspondent that the law is established in all states that industrial firms hiring minors, without consent of their parents, are liable for all injuries sustained. Moreover, if the character of the employment is changed without second consent the liability is the same where no consent is obtained. Of course, a different angle is presented in fire department litigations, because municipalities usually are not liable for injuries to firemen employed to perform governmental functions unless the state law provides for compensation of this kind and almost all state legislatures have enacted laws providing for payment to firemen for injuries received.

LEO T. PARKER.

Fire Apparatus Delivered to Harvey, Ill.—Apparatus just delivered to Harvey, Ill., has successfully passed the Underwriters' test.

Work to Start on Staten Island Stations—Construction will start soon on fire station for Port Richmond and Rosebank, Staten Island, a part of New York City. The Port Richmond fire house will cost $58,300 and the other $62,000. Five months are allowed for their complete construction.

Massachusetts Chiefs' Club Meets

The January meeting and luncheon of the Fire Chiefs' Club of Massachusetts took place in the Parker House, Boston, on Jaunary 15. Seated at the head table were Chief Selden R. Allen, of Brookline, President; William Ollendorf, Chairman of the Legislative Committee for Revision of the Fire Laws; Chief Daniel B. Tiermey, of Arlington, Chairman of the Legislative Committee of the Chiefs' Club; Chief William C. Mahoney, of Peabody, of the Legislative Committee of the Massachusetts State Firemen's Association; and F. Burt Jaquith, Ex-Chief of Randolph, Secretary of the club.

Chief George W. Brown, of Ipswich, was elected an active member of the club; and Russell S. Codman, of the Portable Light Company, was elected an associate member.

Walter L. Wedger, of the Central Railway Signal Company and former state chemist, exhibited and explained a new device called the Central Chimney Fire Extinguisher Fusee.

Chief Tierney read the report of the Legislative Committee which has been working with the State Committee and assisting the latter in drawing up recommendations for revision of the fire prevention and fire protection laws of the Commonwealth of Massachusetts.

Upon motion by Chief Edward F. Dahill, of New Bedford, Mr. Ollendorf was elected an honorary member of the club.

It was voted to invite the Rhode Island Fire Chiefs' Club to hold a joint meeting with the Massachusetts chiefs next month.

Chief William C. Shepard, of Pittsfield, told of the scheme which he adopted this year to eliminate the hazard of dry Christmas trees. After the holidays he enlisted the aid of a troop of Boy Scouts and announced that all old trees placed outside would be removed and disposed of by the Fire Department.

The plan was given publicity in the newspapers and between 5,000 and 6,000 trees were carted away and burned by the firemen, assisted by the Boy Scouts.

An invitation was received from Chief Charles L. McCarthy, of Worcester, for the Chiefs' Club to hold a meeting in Worcester. There was also an invitation from Chief Shepard for the club to meet in Pittsfield in May or June.

Chief Dahill spoke of a case in New Bedford where gasoline fumes from a sewer had penetrated to many homes through the plumbing. He also stated that he knew of one filling station which was selling fifty gallons of gasoline a week to householders for cleaning purposes.

Chief Mahoney pointed out the injustice of reckoning fire losses on a per capita basis and the club voted to send letters regarding this matter to the National Fire Protection Association, New England Insurance Exchange, and National Board of Fire Underwriters.

It was voted to urge full pay pensions for the widows of firemen and policemen killed in the performance of duty.

There was a large attendance of Massachusetts fire chiefs. Among those from outside the state were Chief A. J. Cote, of Woonsocket, R. I.; and Chief Charles H. French, of Manchester, N. H.

HARRY BELKNAP.

Clarence Goldsmith Heads Committee

Clarence Goldsmith, Assistant Chief Engineer of the National Board of Fire Underwriters has been named Acting Chairman of the Fire Service Extension Committee of the National Fire Waste Council. The committee was in charge of George H. Parker of the Kentucky Actuarial Bureau, but a large amount of other work, and the possibility of a trip to Central America, made it necessary for him to resign as Chairman.

Arrested for "Holding" Fire Box

It isn't every one who has a quick and friendly response when a dizzy spell is coming on. But four engine companies, two ladder companies, and two chiefs' cars came from every conceivable direction when a salesman who became dizzy in New York City, held on to a fire alarm box for support and unknowingly tripped the alarm. When the companies arrived, the salesman was still holding on to the box.

Arraigned in court, the man pleaded that he thought he was grasping a lamp post. He was given a suspended sentence.

Riverside, Cal., Appoints Assistant Chief—V. H. Luther has been appointed Assistant Chief of Riverside, Cal.

ABANDONED PAPER BOX PLANT RAZED BY FIVE-ALARM FIRE

First Time That Five-Alarm Response Was Used Since Adoption of New Running Card Year Ago—Delayed Call Gives Blaze Headway

By WILLIAM E. PATTERSON
Bureau of Fire, Pittsburgh, Pa.

A SPECTACULAR quick burning night fire which started from some unknown cause in an old abandoned box factory in a Pittsburgh, Pa., manufacturing and warehouse center, swept through the entire building and gave the firemen a hard fight before it was brought under control.

Evidently the fire had been burning for some time and had gained great headway, due to delayed alarm. It was first discovered by a city watchman on duty in the Bureau of City Water office and storage yards on Liberty Avenue directly opposite the burning building. He stated an explosion had preceded the flames which were then raging on the second floor of the building.

Five alarms were sent out in quick succession, calling fifteen engine companies and three truck companies with a uniformed fire fighting force of 116 men and twenty-one pieces of motor apparatus in command of Chief Richard Lee Smith.

When Engine and Truck Companies No. 25, located at Penn Avenue and Thirty-fourth Street arrived on the scene A "still alarm" was transmitted through the central office at 5:56 P. M. by the watchman who used the telephone to call the Fire Department instead of running to the fire alarm box about two hundred feet distant. When Engine and Truck Companies No. 25 arrived the flames were roaring through a large section of the building and going out of the roof. The fire was practically a three-alarm blaze before the box was pulled.

Employees of the Pennsylvania Railroad Company on duty in the railroad yard in the rear of the burning building informed the firemen that they had watched the fire burning for at least on hour, and as they looked from a point more or less obstructed by a large number of locomotives, they thought that the fire department was already fighting the fire from Liberty Avenue.

Seeing the great extent of the fire when he arrived on the scene, the Captain of Engine Company No. 25 had one of his men pull the street box. This was answered by Engine Companies No. 7 and 2 in command of Battalion Chief Herman J. Weihrauch of the Third Battalion, Engine Company No. 25 and Truck Company No. 25.

The first alarm from the street box which was sent out at 6:00 p. m. was quickly followed by the second at 6:05 p. m., the third at 6:10 p. m., and then by the three-twos, (the fourth and fifth alarms combined), at 6:13 p. m.

The second alarm was answered by Engine Companies No. 6, 32 and 33 and Truck Company No. 3, Deputy Chief Frank G. Jones and Chief of Department Richard L. Smith.

The third alarm was answered by Engine Companies No. 3, 14 and 18 in command of Battalion Chief Michael F. Shanahan of the Sixth Battalion, while the fourth and fifth alarms were answered by Engine Companies No. 48, 28, 5, 42, 30 and 26 and Truck Co. No. 9 in command of Battalion Chief John H. Frazier of the Fourth Battalion.

Quick and efficient work on the part of the firemen under the leadership of Chief Richard L. Smith and Deputy Chief Frank G. Jones finally succeeded in getting the fire under control after a hard fight for over two hours.

Eighteen powerful pumper streams as well as two large size turrett streams from the turrett wagons of Engine Companies No. 2 and 25, each supplied by three lines and two hydrant streams were used on the fire. The pumper and turret streams were supplied by one high pressure gasoline pumper, six 1000-gallon pumpers and eight 750-gallon pumpers, all of the American-La France type.

The burned factory was an old style three-story wood and joisted brick structure. It took in most of the block between Twenty-ninth and Thirtieth Streets, fronting about 240 feet on Liberty Avenue and extending back a distance of 175 feet to Sassafras Street, a twenty-foot thoroughfare, which separated the building from the large railroad yards of the Pennsylvania Railroad.

The building was almost entirely of open construction, with wooden timbers and heavy factory type wooden floors. It made good fuel for the flames as they spread rapidly through the entire structure and out through the roof. The glare of the flames brought hundreds of persons to the scene and made a wonderful sight for persons who witnessed the fire from the hills.

Wired glass windows in metal sashes on the rear and the eastern end of the building, while aiding to keep the fire confined within the building, were more or less of a hinderance to the firemen in getting their streams directed into the burning building.

A large driveway in the center of the building leading from Liberty Avenue to the rear of the structure, acted like a large flue as the draft swept through the driveway, turning this part of the building into a raging furnace. Within a short time the floors and the roof in the center of the building collapsed and crashed through to the first floor.

The building was equipped with automatic sprinklers, supplied by a 15,000-gallon tank, which failed to operate to their fullest capacity owing to some of the main feed lines from the tank being shut off at the time the building was abandoned.

The building was abandoned about two months before the fire by the Kress Company, the company moving into a modern new factory building of fireproof construction.

This is the first five-alarm fire that has taken place in the city since the installation of the new six-alarm assignment card about one year ago. All the assignments and transfers on the new card worked out to perfection. Previous to the adoption of the new six-alarm card, after receipt of the fourth alarm on the old card, any additional help had to be called for by telephone from the vicinity of the fire, which at times was the cause of more or less delay.

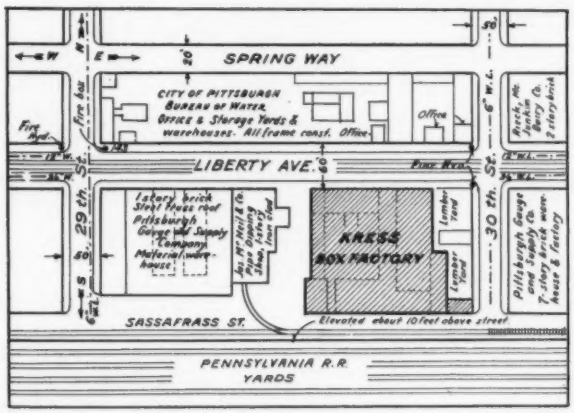


Diagram of Section About Paper Box Factory

Model False Alarm Ordinance Drafted

A special committee of the New York State Conference of Mayors has completed work on a model ordinance which is designed to eliminate false alarms or interfering with the fire alarm system.

The ordinance is based on the study of conditions in many American cities. Such action has been deemed necessary in New York state municipalities since every city and village has been deprived by law in the defense of governmental function in case of accident. The special committee consists of Chief Elmer J. Brown of Binghamton, Chief John Gibson of Mount Vernon and Joseph T. McCaffrey, corporation counsel of Oswego. The model ordinance follows:

An Ordinance to Prevent the Giving of False Fire Alarms in the City (Village) of ——

An Ordinance to Prevent the Giving of False Alarms in the City (Village) of ——.

The city of ..... in Common Council convened, ordains as follows:

Section 1. False Fire Alarms Prohibited.—It shall be unlawful for any person wilfully or designedly to give, assist in giving, countenance or request or cause to be given any false alarm of fire in any maner; provided, however, that this section shall not apply to members of the fire department (or signal system force) in making tests or repairs under the direction of the proper authorities.

Section 2. Interference with Fire Alarm Systems.—It shall be unlawful for any person to tamper, meddle or in any way interfere with any station or signal box of any fire-alarm telegraph system or any auxiliary appliance or wilfully to break, injure, deface or remove, or to make any connection or communication with the poles, wires, boxes or other parts or fixtures of the fire alarm system so as to interrupt or interfere with the proper working of the same, or to mutilate

or destroy any notices that may be legally posted relating to the same.

Section 3. Keys of Signal Boxes.—It shall be unlawful for any person to make or cause to be made, or to use or have in his possession any key, impression or duplicate of any signal box of the fire-alarm telegraph without the written permission of the ————.

Section 4. Reward Offered.—The city (village) of ———— will pay a reward of $50 for the apprehension of any person violating or attempting to violate any provision of this ordinance, to be paid upon conviction. Notice of such reward shall be conspicuously posted near each fire signal box.

Section 5. Penalties.—Any person violating any of the provisions of this ordinance shall, upon conviction thereof, be subject to a fine of not less than $——* or more than $——*, or to imprisonment for not more than ——* or less than ——*, or to both such fine and imprisonment.

Section 6. All ordinances or parts of ordinance in conflict with the provisions of this ordinance are hereby repealed.

Section 7. This ordinance shall take effect ——.

(*Section 1424 of Penal Law fixes penalty of not less than $10 or 10 days' imprisonment or both.)

WHAT'S BURNING

THE following list includes fires of $25,000 loss and over in the United States and Canada, for the periods designated in the headings. These figures, compiled from telegraphic reports, are based on estimates made at the time, and are subject to later investigation and consequent revision. Taken as a whole, however, they give an approximately correct view of the losses incurred. The figures represent loss in thousand.

Week Ending January 24

BAKERSFIELD, Calif.—Plant of Central Calif. Ice Co.	65
GARY, IND.—M-B Boot shop damaged	65
LAWTON, OKLA.—First Christian Church	80
WINCHESTER, VA.—Plant of Lee Baking Corp. damaged	250
HARRISON VALLEY, PA.—Business and residential property	25
PORTLAND, IND.—Packing house, J. A. Long Co.	40
BATTLE CREEK, NEB.—Valley Bank Bldg., adj. property	50
AIKEN, S. C.—Property of S. H. Knox of Buffalo, N. Y.	50
PARIS, KY.—Bldg. occupied by Duncan-Terrell Motor Co.	65
ST. LOUIS, MO.—Factory of Rice-Stix Dry Goods Co.	80
LANDER, WYO.—Bldg. occupied by Tremont Garage Co.	80
SUFFOLK, VA.—Bldg. of Suffolk Peanut Co. destroyed	45
SASKATOON, SASK.—Several business bldgs. damaged	80
STAMFORD, CONN.—Property of Luders Marine Corp.	85
EDMONTON, OTTAWA—Western Canada Box Factory	25
QUEBEC, QUE.—Convent of St. Ludger destroyed	45
LAKEWOOD, N. J.—Laurel House damaged	30
WASHINGTON, D. C.—Home of Senator Key Pittman	45
ATLANTA, GA.—Plant of Atlanta Chemical Co.	25
TARKIO, MO.—Main bldg. Tarkio College destroyed	100
CARTHAGE, MO.—Store of Taylor Furniture Co.	40
SHERWOOD, N. D.—Post office bldg. adj. property	25
MONROE, MICH.—Whse. of Consolidated Paper Co.	400
FOSTORIA, OHIO—Property of N. E. George	25
QUEBEC, QUE.—Seifert building destroyed	50
RICHMOND, QUE.—Smille block, Main St.	25
STRUBLE, IA.—Business and residential property	45
BURLINGTON, VT.—Business property on Church St.	30
APPLETON, WIS.—Bldg. of Schlintz Drug Store	25
CARLISLE, PA.—Bldg. occupied by Carter Drug Co.	80
CLEVELAND, OHIO.—Bldg. of Newman Manufacturing Co.	80
DETROIT, MICH.—B. W. Beals Candy Co. and adj. property	80
McLEANSBORO, ILL.—Whse. of C. C. Wright Co.	40
BUCTOUCHE, N. B.—Five business bldgs. Main St.	65
SUPERIOR, W. VA.—Property of Lake Superior Coal Co.	45
RITZVILLE, WASH.—Myers-Shepley Co. dept. store	65
OMAK, WASH.—Bldg. of Omak Trading Co. destroyed	125
LITTLE ROCK, ARK.—Office building damaged	25
ATLANTA, GA.—Main bldg. of Atlanta Chemical Co., Inc.	50
MONTREAL, QUE.—Milan Hotel destroyed	40
S. DALLAS, TEX.—Whse. of Southwest Tablet Mfg. Co.	80
ST. ANDREWS, TENN.—Main bldg. St. Andrews School	25
BERRYVILLE, ARK.—Mill of W. B. Wilton Co.	50
GUNTER, TEX.—Business establishments damaged	50
CADIX, OHIO.—School building destroyed	25
PINE BROOK, N. J.—Morris Grossman Hotel destroyed	70
MILLVILLE, FLA.—Grammar school destroyed	45
MIAMI, ARIZ.—Oil tanks of Inspiration Copper Co.	25
COFFEEVILLE, MISS.—Bldg. of Bailey Bros.	50
SKYKOMISH, Wash.—Log storage of Bloedel-Donovan Co.	75
MORRISON, IA.—Farmers elevator destroyed	25
LINWOOD, PA.—Garage of Roy Whilden destroyed	40

Week Ending January 31

ANNISTON, ALA.—Silver's Ten-cent store damaged	25
ST. LOUIS, MO.—Whse. of Highlands Fire Clay Co.	80
WHITE ROCK, B. C.—Central Hotel and adj. property	800
PHILADELPHIA, PA.—Gaston Presbyterian Church	150
GREENWOOD, ARK.—Alexander High School destroyed	30
CHICAGO, ILL.—Clarendon Ave. apartment house	40
CHILLICOTHE, MO.—Business property damaged	40
LANCASTER, PA.—Y. W. C. A. building damaged	25
PITTSTON, PA.—Business bldg. of R. J. Walsh	30
OXFORD, KAN.—School building destroyed	25
FERRIDAY, LA.—Property of J. M. Jones Lumber Co.	250
PERRY, N. Y.—Bldg. of Sutherland Motor Co.	40
DURYEA, PA.—Bldg. occupied by Levy Baking Co.	25
QUEBEC, QUE., CAN.—Store of T. Simard Co.	175
NEWPORT, N. J.—Newport Business College damaged	80
PIQUA, OHIO—Business bldg. on Public Square	150
GEORGETOWN, ILL.—Testa Bros. garage, adj. property	50
TOWSQN, MD.—Property of Mrs. J. H. Greenway	125
NEW KENSINGTON, PA.—Business district damaged	200
KEYTESVILLE, MO.—Bldg. of White Motor Co.	65
FREDONIA, N. Y.—Garage occupied by Hanford Motor Sales Co.	40
RUNGE, TEX.—Public School bldg.	65
RANGER, TEX.—Phillips Drug Store, adj. property	40
ELDORADO, KAN.—Store of Wilson Hardware Co.	65
PEORIA, ILL.—South Washington business property	70
PIONEER, OHIO—Ekley meat market, adj. business bldgs.	40
GREENSBORO, N. C.—Adm. bldg. N. C. Agri. & Tech. College	100
RUSSELLVILLE, ALA.—Carter Grocery Co. whse. destroyed	80
MENANDS, N. Y.—Home of Geo. Anderson destroyed	25
BURLINGTON, WISC.—Orpheum Theatre building	80
THIENSVILLE, WISC.—Factory of Gilbert Shoe Co.	80
BELLEVILLE, ILL.—Plant of Belleville Stove & Range Co.	85
CARUTHERSVILLE, MO.—Cunningham bldg. damaged	45
PINE ISLAND, MINN.—Post office and adj. property	65
MIDDLETOWN, CONN.—First M. E. Church destroyed	80
TAUNTON, MASS.—Business block destroyed	40
NORTH HATLEY, QUE.—Factory of Snag-proof Overall Co.	25
SCARBORO TOWNSHIP, ONT.—Residence of Sir Donald Mann.	150
COALINGA, CAL.—Absorption plant of Petroleum Securities Co.	400
HALIFAX, N. S.—Bldg. of Archibald Motor Co.	225
NORVAL, ONT.—Grist mill destroyed	80
OSHKOSH, WISC.—Main whse. of Radford Co.	100
GRAND ISLAND, NEB.—H. H. Glover block damaged	80
STURGEON BAY, WISC.—Dwelling and store of Frank Starr	25
SAULT STE. MARIE, MICH.—Zeller drug store, adj. property	25
ATHENS, WISC.—Sunshine clothing store, adj. property	25
KENNEWICK, WASH.—Storeroom of Pacific Power Co.	30
KEWANEE, ILL.—Business block destroyed	200
E. BOSTON, MASS.—Blacksmith shop at Atlantic Works	40
BERLIN, N. Y.—Bldg. occupied by J. J. Newberry Co.	65

Chief Louis Behrens Re-Elected

For the twenty-fourth year, Louis Behrens of Charleston, S. C., was re-elected head of the fire department.

Chief Behrens' service extends back to the time of the organization of the first paid fire department. At that time he was a member of the old volunteer department and, in fact, is the only surviving member of the old volunteers. He is a charter member of the paid department. The Chief attended the New York Fire College and graduated in 1900. He became chief of the department in 1907.

Chief Louis Behrens

When he joined the old volunteers he was sixteen years old. For fifty-four years he has been fighting fires. He is a firm believer in the value of good discipline in building up a fire department.

Chief Behrens announced that the city will soon call for bids for the purchase of a 750-gallon pumper and three thousand feet of hose.

Reward for False Alarm Conviction

The council of Wilmington, Del., has passed an ordinance offering a reward of fifty dollars for the arrest and conviction of any one guilty of turning in a false alarm.

Many other cities are offering similar rewards in an effort to reduce the large number of false alarms. Several accidents have resulted from companies rushing to answer such a call.

Baker, Ore., Firemen on Two-Platoon—The Fire Department of Baker, Ore., will operate on a two-platoon basis. Each man not under regular salary will be paid $1.50 for the first hour in attendance at each fire where water is used, $1 for each hour or fraction thereafter, and $1 for attending false alarms or chemically controlled fires.

Fireman Killed Answering False Alarm—One fireman of Philadelphia, Pa., was killed and three others injured when two fire companies responding to an alarm that later proved to be false, collided. Two victims being rushed to a hospital in a police car received further injuries when the car collided with another. Dense fog prevented the fire apparatus drivers from seeing each other.

The Kodak Can Catch a Falling Wall at One-Fiftieth of a Second If the Shutter Is Snapped at the Right Time

There Is Interesting, Thrilling Sport in

Four-Alarm Photography

By ALTON HALL BLACKINGTON

Photographs by the Author

EVERYONE who is interested in fire fighting, is interested in fire pictures although not one "spark" in ten makes any attempt to take his own pictures when the brewery burns down.

In the last fifteen years, I have seen citizens, lawyers, doctors, real estate and insurance men, firemen, chiefs and of course, hosts of fire buffs go into a huddle the moment a fire picture is produced in the club room. I have often wondered why so few followers of the red wagons take up the fascinating hobby of "Four-Alarm Photography."

Practically everyone today owns some kind of a camera; either still or movie, in many instances both, and while folks are anxious to take pictures of Junior in his bath, the smash-up on the turnpike and the Sunday picnic, few of them make any attempt to photograph a three-alarm blaze in the ice house up the street.

Is it because they are too excited to think of the camera, or is it because they are not prepared when the alarm comes in?

I have heard the theory advanced that a great many of the "buffs," (who buy pictures from the press of every big fire that they have attended) are of the opinion that a special type of camera is necessary for taking of fire photos.

Of course this is not so. A camera that will take a picture of a ball game, will take a picture of a fire.

However, smoke lays down a blanket of smudge that oft times obscures the burning building and the firemen so pictorially draped upon the ladders, but this handicap should only wet the interest and skill of the photographer to attempt these more difficult and daring scenes.

Fire photography is one of the most fascinating hobbies to be found.

If you are any kind of a photographer at all, and have had fairly good success with your camera, take a roll of undeveloped film to the city editor of any paper as soon after the fire as possible. If you have an idea this his paper was not represented at the fire, your chances of making a sale are very good; and if you are positive that none of his cameramen were present, you can be sure that he will buy your pictures rather than be scooped by the other local sheets.

Newspapers are in the habit of paying from one to five dollars apiece for photographs of fires and other news events.

When a well-known hotel in the White Mountains was struck by lightning and totally destroyed, one of the young lady guests, who happened to have her post card camera with her, made six pictures of the hotel while it was in flames. She drove twenty-five miles with the roll of film and received fifty dollars for the pictures, that while being very spectacular, were after all only ordinary snapshots.

Firemen like to have a photographic record of the blaze in which they so heroically figured and there is a great army of "sparks" who will buy anything that has to do with a fire.

I have been asked a thousand times, what type of camera is best for taking fire pictures and my answer has always been, "The one you can grab the quickest."

A three dollar box Brownie will take almost as good a picture as a one hundred dollar Graflex when there is plenty of sunlight.

On dark days in fall and winter and late in the afternoon when the streets are filled with fog and smoke, a box Brownie is absolutely useless and no amount of experimenting or careful manipulation with this kind of an outfit will bring results if you are making snapshot pictures.

It is then that the expensive "Antistigmat" lens of the press camera with its tremendous speed and its focal-plane shutter comes into action and that is exactly why the press photographers are forced to use this type of cumbersome

and expensive apparatus when lighting conditions and the weather is against them.

I would not advise the purchase of a Brownie for the purpose of making fire pictures, but when conditions are right you can get some excellent negatives with this simple and inexpensive apparatus. And if you happen to drop it or get it knocked out of your hands the loss won't break you; but if you drop your Graflex or get a plaster hook through the bellows you can be sure of cutting down on your cigarette and milk shake appropriation.

Right here let me give you a word of warning about making your fire pictures.

Keep Out of the Firemen's Way!

Do not think that you have to be inside the line to make good pictures. Sixty per cent of the best fire pictures taken are made from an elevation such as a roof across the street or from some nearby building where not only the fire itself but the hose littered street and crowds of spectators will be shown in the foreground.

If you are fortunate enough to own a front line badge, don't spoil your privilege by setting up a tripod in front of the hook and ladder truck; and above everything else, don't ask a fireman to leave off fighting fire to pose for a picture.

While some of the news photographers are experts at making flashlights of night fires and although once in a while they achieve some striking examples of press photography, I personally, am opposed to setting off a series of explosions at a 3-alarm fire in the middle of the night.

Not only is the work dangerous for the men who operate the flash gun, but it is disconcerting to the men on the big stick as they are very apt to mistake the noise for a hot air explosion or become startled by the sudden flash of light that pops out unexpectedly from the clouds of smoke.

Getting back to the type of camera that is suitable for fire photography, I prefer first of all a camera that is large enough to make pictures that can be reproduced without enlarging, and while 4x5 is recognized as a standard size, one can still use the quarter plate (3¼-4¼) with excellent results.

It is obvious that if you use roll film you will have to make six pictures before the film can be developed, or at least waste the film that is not used. However, any fire that is worth photographing at all, is worth making at least six exposures.

There are several advantages to the camera that uses plates or film packs instead of roll film. A few years ago this type was more expensive than the roll film kodak, but today a very efficient outfit can be purchased for a moderate

An Interior Photograph

A tripod is necessary for making interior photographs to steady the camera for the time that the lenses remain open

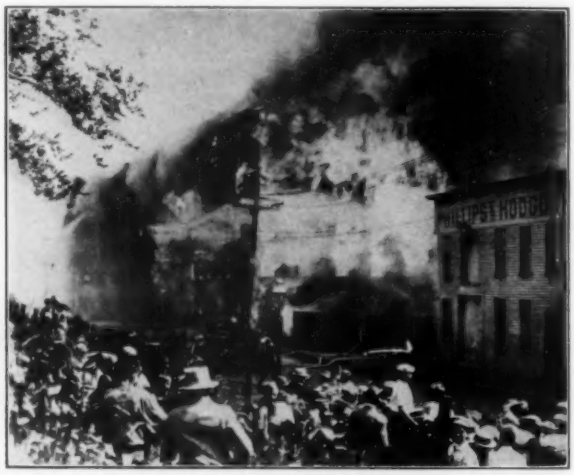
sum, that not only has the plate and film pack attachment, but a first class antistigmat lens as well.

There are two reasons why plates should be used if possible. In the first place, they can be handled in the dark room with a greater speed and dried more rapidly than film. In the second place, it is possible today, to buy ultra-speed plates that are many times faster than film. This makes possible the taking of pictures under difficult light conditions and at faster shutter speed than could ordinarily be expected.

The same advantages apply to film packs and cut film and to these there is the added advantage of the lightness of the material.

A few simple rules if followed will assure you of some excellent results. Always keep your camera loaded. Be sure that your lens are clean and shutter working properly. Keep your camera and extra films of plates and a carrying case where you can grab it at a moment's notice and keep your camera and plates as dry as possible.

A small folding tripod is absolutely necessary for making interiors and pictures where you wish to make a time ex-



Picture Taken from Elevated Position

This view was snapped from an elevation across the street from the burning building. Much better views are taken in this way.

posure of any sort. Keep out of the crowd and compose your pictures as simply as you can.

If you can develop your stuff so much the better and you will be making no mistake in sending an occasional print to the chief and boys of your local department.

A glance at the illustrations that accompany this article will give you some idea of what can be expected from ordinary types of cameras and if these few simple suggestions are followed, you will not only have an enviable collection of fire pictures, but you may at the same time find yourself engaged in a hobby that is not only fascinating but profitable as well.

New York Entertains Firemen Locals

The Uniformed Firemen's Association of Greater New York proved a most painstaking host to the 1930 gathering of representatives of New York State locals of the International Association of Fire Fighters.

A most colorful ball and other social functions will never be forgotten by the guests who were fortunate enough to be registered at the Hotel President. Perhaps the most outstanding feature of the whole conference was the act put on by the newly formed U. F. A. Glee Club composed of twelve members of the New York Fire Department under the direction of John B. Martin, son of Chief "Smoky" Joe Martin, and Lieutenant William J. Carroll. This entertainment eclipsed anything that had been seen at previous gatherings.

Several of the group were former theatrical men. William Bailey of Engine 263, gifted with a rich tenor voice, was a former star of the Broadway successes "The White Eagle," "The Desert Song," and the "Blue Moon." He gave many encores until he became exhausted and had to refuse. Other members of the group were equally capable and their numbers brought calls for encores.

A clever act depicting the boys reporting on duty at the fire house was directed and written by Martin and Carroll. Change of platoon signals and all of the customary routine of fireman duty made the scene very realistic.

The sketch opened with the men enjoying their leisure moments. There were singing and dancing numbers. An alarm is received and the boys prepare to "roll." A motion picture screen is lowered and "movies" displayed of the

apparatus responding to the blaze, and then the fire itself. At the conclusion, the boys appeared with helmets and the customary equipment. The act ended with the singing of "Auld Lang Syne."

The group consisted of John Lowery, Engine 207; William Bailey, Engine 263; Frank Cartwright, H. & L. 112; William Sullivan, Engine 209; H. J. Wilson, Engine 278; Arthur Fisher, H. & L. 102; H. Griffard, H. & L. 142; P. Griffard, Engine 290; D. Morrissey, H. & L. 110; G. Beck, H. & L. 155; H. Guerin, Engine 276, and George Cooke, Engine 218, all members of the New York Fire Department and the U. F. A.

ARTHUR W. ESPEY.

Capt. T. McDonald of Newark Dead

Thomas McDonald, captain of Truck Company No. 10, Newark, N. J., died at his home following an illness of a month due to pneumonia. He was forty-six years old. He entered the department on May 15, 1911, and was assigned to Engine Company No. 5. He was promoted to captain on November 1, 1925. Chief John J. Towey said of him:

"He was one of the most studious and zealous members of the department and was an unselfish volunteer instructor of many young firemen."

Captain McDonald was a radio enthusiast and was a charter member of a local radio club conducted by the *Newark Evening News*.

The Late Capt. T. McDonald

Funeral services were held at the Sacred Heart Church. They were in charge of Battalion Chief Charles E. Storch, and it was attended by Chief Towey and the Newark Fire Department Band. The captain was buried in Fairmount Cemetery. He is survived by a wife and two children.

In the passing of Captain McDonald, the members of his company and the department feel that they have lost a friend who was always willing to explain to them the technique of fighting fires and the art of fire administration.

CORRESPONDENCE

Honors Claimed for Chief Green

To the Editor:

In your edition of January 22 I read of the death of Chief G. S. Pitt of Middleton, Conn. The item gave a resume of Chief Pitt's record as a fireman and stated that he was the oldest permanent chief in New England. Chief Pitt's record was a most splendid one, one of which any one could well be proud. While not wishing to detract in any way from the honors due Chief Pitt, I wish to call your attention to the record of our chief here in Concord, N. H.

Chief William C. Green first joined the fire department as a call man in 1870. After approximately a year, he resigned because "leather hose ruined too many twelve-dollar trousers." He rejoined on July 1, 1882 when fabric hose was adopted. He was made a captain a few years later and on December 11, 1894, was appointed to the position he now holds.

Chief Green was the first permanent chief to be appointed in Concord. He is still very active in the performance of his duties, making first run on all bell alarms. He does all his own bookkeeping, and so forth. Chief Green will be seventy-seven years of age on February 13. I believe that this is a record hard to beat.

Very truly yours,

C. G. HOWSER,
Concord, N. H.

Fire Prevention and Fire Preparedness

To the Editor:

I want to take this opportunity to congratulate you for the editorial in your issue of January 22 on "Fire Prevention and Fire Preparedness." I have based my talks for the past two years before civic clubs upon this subject and in the past nine months have stressed the giving of special attention by inspectors to the four causes producing the heaviest losses. I have, however, contended that fires caused by faulty electric installations should not be charged to fire departments but blamed upon lack of thorough inspections by the electric departments of cities. Every city of any size has or should have such a department and they should be held responsible for fires along that line in their communities.

I think it was ex-President Coolidge who said in one of his talks on preparedness that peace pacts were mere scraps of paper unless we were prepared to meet emergencies until our peace pacts became effective. Fire prevention is nothing more than propaganda until we drive it home and make it effective. Until that time comes, we must be prepared.

Although out of the active service I perhaps make more fire prevention and preparedness talks than many fire marshals in active service.

Sincerely yours,

JOHN G. GAMBER.
Evanston, Ill.

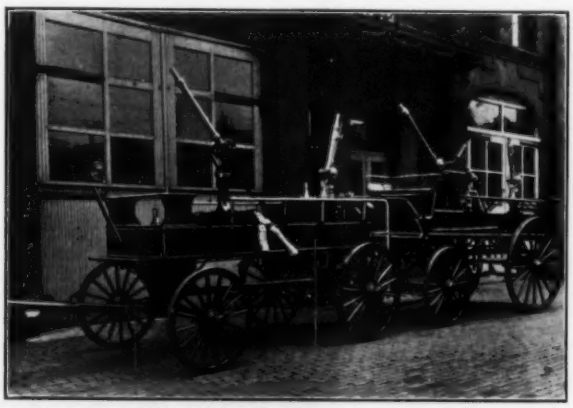
Elmira Mounts Turrets on Wagon

Two wagons have been fitted up by the Elmira, N. Y., Fire Department with Morse Invincible nozzles and Hart-Phillips deck pipes, as well as a complete assortment of tips ranging in size from 1¼ to 2-inch. The Hart-Phillips pipes have three-way feeds.

The Morse pipe on No. 1 Turret has two feeds while the No. 2 Turret has four feeds into the Morse pipe. A siamese is placed on each side. The first wagon carries a two-way Eastman deluge set with extra tips up to 2-inch. Extra playpipes for mobile lines and other accessories are also carried.

Elmira is divided into two parts by a railroad track. One of these turrets is stationed on each side of the railroad. The wagons were fitted up under the direction of Edward Gallaven, Master Mechanic of the department.

Whenever a turret wagon is necessary, an auto or truck is sent to the station and the wagon towed to the fire. If the wagon should be demolished under the weight of a falling wall, the department would not suffer a great financial loss. It was this that prompted the construction of the two special wagons.



Turret Wagon in Use in Elmira, N. Y.

San Francisco Names Three Battalion Chiefs—Three captains of San Francisco have been promoted to the rank of battalion chief.

Midland, Tex., to Enlarge Force—Plans for a larger volunteer fire department have been outlined by Chief Luther Tidwell of Midland, Tex.

Austin, Tex., to Have Drill Tower—Plans are being completed for the erection of a drill tower in Austin, Tex. It will cost $5,000 and will be paid for out of fire station bonds.

Seattle Finishes Station Plans—Plans have been completed for the construction of a new fire station in Seattle, Wash., estimated to cost $56,000. A mezzanine floor above the apparatus room will house officers' quarters, and the floor above will be occupied by the firemen.

INDUSTRIAL PLANT PROTECTION

SAFETY MEASURES TO BE USED AT GASOLINE REFINING PLANTS

Many Factors to Be Followed in Designing a Plant—Chlorine in Contact with Gasoline Is an Exceedingly Dangerous Hazard

ALTHOUGH the natural-gasoline industry has recently made great strides in reducing accidents, the industry remains a hazardous one, due to the very nature of the raw materials handled, the process of extracting gasoline from natural gas, and the products obtained, according to the United States Bureau of Mines, Department of Commerce. Since gasoline is extracted under pressure and gas and gasoline are highly inflammable, the risk of fire and explosion always attends the recovery of gasoline from natural gas. The serious explosions and fires that have occurred recently demonstrate the need of increased efforts to prevent recurrence of similar disasters.

Decreased height of towers, better design of stills, automatic regulator controls, and proper venting, have improved operating equipment and increased the safety of operation. Improvements in equipment and the introduction of new devices and methods have resulted also in the manufacture of better grades of gasoline than heretofore.

In designing a natural-gasoline plant the following factors bear directly upon its safe operation: Selection of the site; the plan of the plant and equipment with reference to the surface contour; arrangement of the hazardous equipment to reduce, so far as possible, the risk of fire; provision for future construction without congestion; adequate strength of all structures and equipment; and specifications for materials.

In so far as safety is concerned, the advantages offered by selecting a site with reference to topography call for considerable attention. An elevated location is superior to one that is perfectly level, because the buildings and equipment can be arranged so that gasoline or oil from a bad break or spill will flow away from the course of ignition and thus reduce perceptibly the danger of fire.

Judicious Arrangement of Equipment

The next important factor upon which the safety and success of a gasoline plant depend is judicious arrangement of equipment. Spacing equipment at minimum distances that will provide for economy in construction, safe and efficient operation, and the security of the men connected with operations are very important problems. Because of the variety of sites upon which gasoline plants are built and the various types of equipment used it is evident that a set of specifications for arrangement of equipment that will be best for every condition cannot be drafted. Nevertheless, there are certain fundamental considerations on the location of the more hazardous machinery and equipment which must be noted by the designer in making a layout of any installation. Systematic arrangement of the plant equipment facilitates the efficient use of fire-fighting equipment. Moreover, experience has shown that fires are more easily confined to small areas in properly designed plants.

To reduce the fire and explosion hazards of a plant to a minimum, a proper place must be provided for every combustible substance, safely removed from every source of ignition. This is acomplished by progressively arranging the sources of ignition and combustion so that the most dangerous is farthest removed or isolated from the most dangerous combustible, the next dangerous in a correspondingly closer relation and the least dangerous accordingly placed in the closest relation to each other.

Although some designers of gasoline plants still adhere to wood-frame construction for compressor buildings, the trend in design is toward all-steel fireproof buildings. The adoption of fireproof structures is a forward step in plant safety. A building of steel frame construction covered with corrugated-iron sheathing and with a continuous row of steel sash around it, wide doors in front and back of each compressor unit or opposite the aisles between the units, and a monitor on the ridge which runs the entire length of the building is a type of construction that is commonly adopted in recent compressor-plant design.

The spacing and arrangement of the compressor units with reference to duplicate units and auxiliary equipment are details that affect safe operation. Wide passageways between machinery in motion greatly reduce the danger of accidents.

Few gasoline-plant managements fail to provide safeguards for compressors and auxiliary operating equipment. Moreover, nearly all states have mandatory regulations governing the safeguarding of moving machinery.

Pressure Equipment and Storage Tanks

The construction of absorbers, stills, accumulators and other pressure equipment is rather well defined and standardized. Both riveted and welded shells are in common use. Although poor welding and poor materials, coupled with poor design, have resulted in welding failures and disaster and have created a sentiment unfavorable to welded vessels, it is significant that successful welding is being accomplished in building this equipment.

To prevent excessive losses due to vaporization, it is general practice to store natural gasoline in tanks under a low pressure. In the mid-continent area nearly all of the product is shipped in tank cars, and a large storage capacity is therefore required at the plants. Experience has shown that storage should be provided for thirty days' production to allow for irregularities in shipping. Horizontal tanks ten feet in diameter and forty feet long are the most commonly used and are undoubtedly the best storage for handling large quantities of gasoline. The tanks are designed to withstand an operating pressure of twenty to twenty-five pounds per square inch and are subjected to a hydrostatic test of fifty pounds per square inch.

Statistics show that inadequately and improperly installed illumination causes or helps to cause approximately eighteen per cent of industrial accidents. Improper lighting also impairs vision and decreases efficiency. At gasoline plants safety in a large measure depends upon good illumination.

When free chlorine combines with certain hydrocarbons in gasoline, hydrogen is liberated with explosive violence, especially in the presence of sunlight. To be safe, therefore, it is ncessary that the most rigid precautions and safety provisions be incorporated in the design of hypochlorite treating plants, so that there is no possibility of gasoline coming in contact with the free chlorine used in the process.

Care Required in Choosing Fire-Fighting Equipment

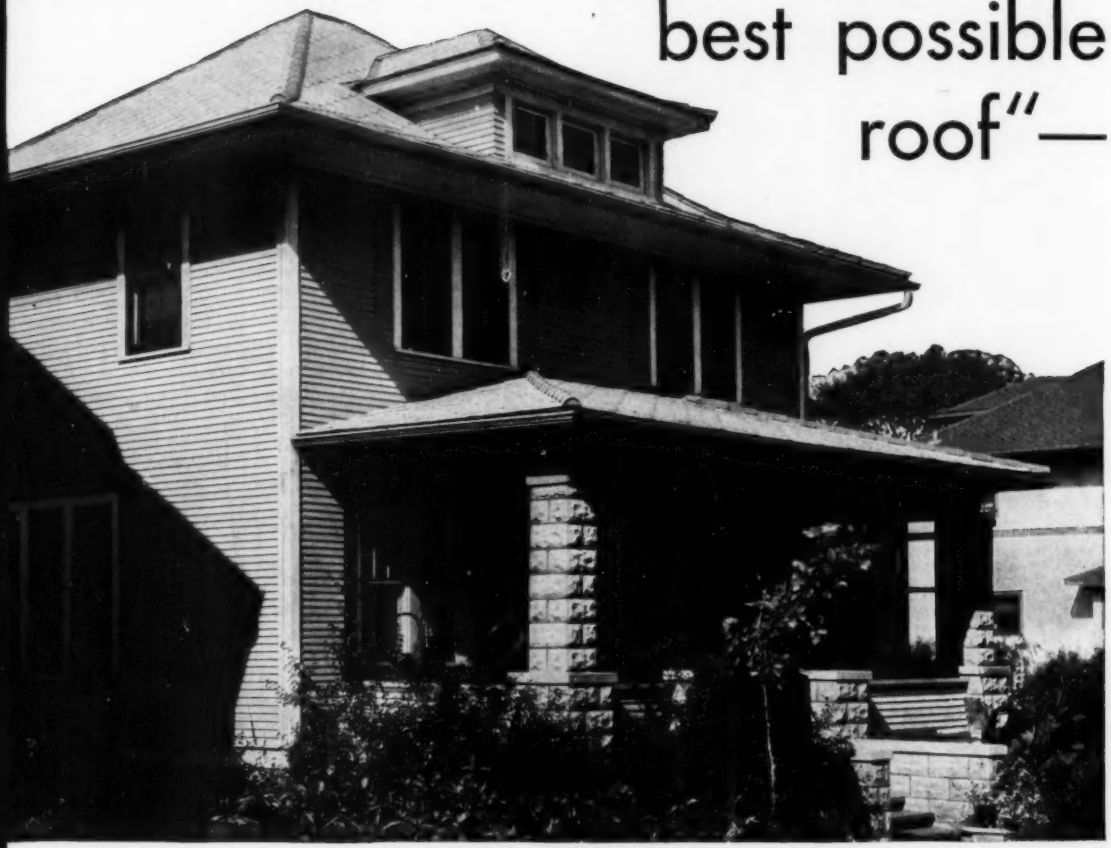
To provide adequate protection against fire, too great stress cannot be placed upon the need of considering fire-fighting equipment as a part of the operating equipment and the importance of installing it before the gas is turned into the plant. To accomplish this end, individual plant conditions and hazards must be studied with the view to making the installation of a size and nature compatible with the requirements of the particular hazard. A careful study of conditions results in equipment being properly centralized and distributed, which greatly speeds up fire fighting.

Safety in natural-gasoline plants involves much more than the mechanics of the plant itself. After plants have been constructed according to the best design and have been provided with adequate fire-fighting equipment only a part of the work of accident prevention has been completed. The principal problem in the operation of plants deals largely with the human element. The selection of men who are careful to take charge of operations and proper instruction of the personnel in safe methods of operation are probably of greater importance in preventing accidents than any other single factors. Incorporating safety in the design of equipment and safeguarding mechanical hazards in compressor and absorption plants are comparatively simple matters, but the education of the men to recognize and guard against the inherent risks, whether small or great, requires consistent and persistent effort. Most accidents can be avoided by exercising ordinary skill and prudence, provided the men are thoroughly acquainted with the causes of accidents and the hazards of their occupation.

Importance of Periodic Inspection

Satisfactory and safe operation of natural-gasoline plants is obtained only by adhering strictly to a routine periodic inspection at regular intervals and by keeping an accurate log of operations, such as temperatures, pressures, fuel consump-

"Desiring to apply the best possible roof"—



The attractive home of the Commissioner of Fire Protection, A. A. Westergard of Omaha. This roof of J-M Asbestos Shingles will never wear out, and it provides real protection against roof fires.

With this intention Commissioner Westergard selected J-M Asbestos Shingles for his own home

We believe every fire fighter will be interested in this letter from Mr. A. A. Westergard, the well-known Commissioner of Fire Protection of Omaha.

Mr. Westergard, as is natural with a man in his position, wanted a safe roof on his own home. He investigated, bought Johns-Manville Asbestos Shingles and wrote us as follows—

"I might add that after considerable study and investigation Johns-Manville Asbestos Shingles were selected and applied to my roof. This investigation was made with the Chief and Master Mechanic of the Omaha Fire Department, whom I called in, desiring not only to apply the best possible roof from an erosion-resistive viewpoint but also fire-resistive.

"I am pleased to say that I am entirely satisfied with the result.

"Sincerely, A. A. Westergard,
Commissioner of Fire Protection"

Every fireman knows the danger of roofs which will take fire from flying brands, or which will become firebrands. J-M Asbestos Shingles are fireproof and they never wear out. They offer the home owner true economy. Send for your free copy of "The New Book of Roofs." We want every fire fighter to have this interesting book.

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RIGID

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The positive waste valve.

All operating threads are dry, being above the stuffing-box.

No toggles, no small, quick-wearing parts.

All moving parts are bronze or bronze-bushed.

The outside casing permits replacing a two-way standpipe with a steamer and two-way standpipe without digging up the ground.

An easily installed
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readily adapts them to new grade.

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THE BI-LATERAL FIRE HOSE CO.

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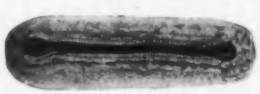


If you purchase BI-LATERAL FIRE HOSE it will increase the value of your hose-carrying apparatus more than the cost of the load of Bi-Lateral Fire Hose.

We can load from 25% to 33⅓% more and when coupled with rocker lug couplings the Bi-Lateral hose makes an apparatus one to be proud of and as near perfect as possible to do quick and efficient service.

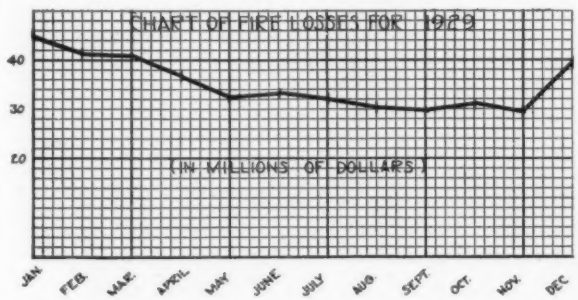
tion, gas output, shutdowns, repairs, and any abnormal operating conditions.

Under the most favorable conditions the extraction of gasoline from natural gas is full of hazards, and it is exceedingly important that plants be designed and operated under the supervision of competent and careful engineers and foremen who fully realize their responsibility for the safety of the men and who are able to secure their full cooperation. The men, in return, should realize the moral significance of thoughtfulness and attention in order that the safeguards which experience has provided are not nullified. A knowledge of the plant and the causes of accidents enables operators to anticipate in some measure the possibility of such accidents and to exercise a greater control over their occurrence.

In this industry accident prevention is inseparably related to fire prevention. Although every accident hazard is not necesasrily a fire hazard, every fire hazard is an accident hazard.

Fire Losses for 1929

To meet the growing demand on the part of news organizations, and others interested in the subject, the Executive Committee of The National Board of Fire Underwriters has



authorized the release of the fire and lightning losses in the United States for 1929.

These figures will be issued each month, as soon as the 245 member companies of The National Board have reported. It is felt that the publication of these fire and lightning losses in the United States will replace the incomplete and inaccurate estimates that have been offered to the public.

The record for the calendar year of 1929, based upon the fire and lightning losses reported each month by the member companies of the National Board and tabulated at the National Board office in New York follow:

January, 1929	$44,713,825
February, 1929	41,520,290
March, 1929	41,277,814
April, 1929	36,845,795
May, 1929	32,129,408
June, 1929	33,605,663
July, 1929	31,985,493
August, 1929	30,446,893
September, 1929	29,249,355
October, 1929	31,652,385
November, 1929	29,061,869
December, 1929	39,726,338
Total	$422,215,128

San Fernando, Cal., to Have New House—The construction of Fire Station No. 2 in San Fernando, Cal., is being planned.

Dinner Tendered Chief Davis—The City Business Club tendered a luncheon to Chief Ross B. Davis and other members of the Philadelphia Fire Bureau.

Thieves Steal Firemen's Phone—Thieves entered the fire house in Gloucester, N. J., and tore a telephone from the wall to get at the coin box. The fire house is left open at night for the convenience of residents of the section who have to use the telephone.

Shenandoah, Pa., Has Bad Factory Blaze—One fireman was killed and others were injured while fighting a fire in Shenandoah, Pa., that started in a shirt factory and spread through a closely built residential section. Fifteen homes were destroyed. The fireman was killed when a side wall collapsed. Firemen from adjoining towns were called for assistance.

Telephone Service in Fire Emergency

Ever since the time of the fire which in 1923, came down the hills from the east of Berkeley and did considerable damage to property in the city of Berkeley and for a time threatened the entire East Bay Cities, fear of a similar conflagration has been uppermost in the minds of the people of Berkeley during the dry season in the fall of the year.

During the past several weeks this fear has been greatly increased due to the extreme drought which left the hills and canyons dry as tinder. The danger was greatly increased due to the prevalent north winds. (This hazard was eliminated due to the first rains on December 8th)

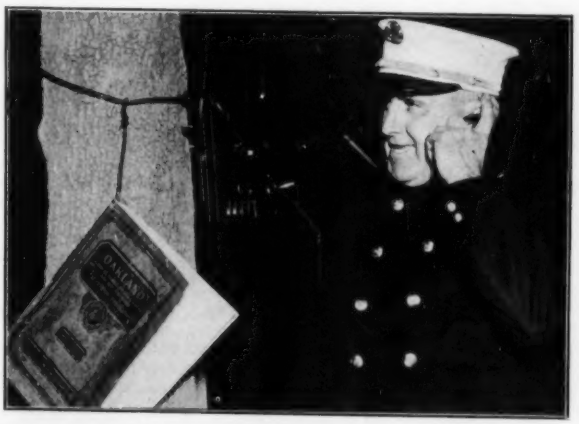
Several small fires occasionally broke out, and on November 7 a more serious fire again developed in the hills. J. N. Edy, city manager of Berkeley, caused the alarm to be given calling out all available men, apparatus, and fire-fighting material.

B. A. Glover, Berkeley Commercial Manager of the Pacific Telephone and Telegraph Company and F. J. Pope, district installation superintendent of the same company, sent A. J. Smith, foreman of combination men, and B. C. Porter, sales supervisor, to offer what assistance might be necessary. Upon their arrival at the point of mobilization near the top of Grizzly Peak Boulevard, Mr. Porter asked Chief George Haggerty what assistance might be rendered by the telephone company.

Chief Haggerty stated that a telephone would be of extreme value as it would enable him to keep in touch with other parts of the city and call for further assistance when necessary. Within forty-five minutes from the time the chief made his request, fifteen spans of wire had been strung from a terminal approximately one-half mile from the point of mobilization, and a telephone set installed on the tree for the chief's personal use.

Many favorable comments were received relative to the promptness of this installation and the spirit of cooperation shown by all members of the telephone organization.

Mr. Porter, not being satisfied with temporary installation of telephone service to be used in emergencies of this kind, has submitted to City Manager Edy a suggestion that four



The temporary telephone helped in fighting the brush fires

police boxes equipped with telephones be installed at various strategic points in the neighborhood. It is expected that these telephones will be placed in the very near future.

C. W. GEIGER.

Long Beach, Cal., to Open New Stations—Some time early in February, Long Beach, Cal., will formally open two new fire stations.

Ft. Pierce, Fla., Has New Apparatus—Fire apparatus for the protection of rural property has been delivered to Ft. Pierce, Fla.

N. Salem, Ore., to Have Fire House—A bungalow fire station is to be erected in North Salem, Ore. The building will cost $8,000. It is expected that another station will be erected in South Salem.

More Firemen Urged for E. Orange, N. J.—Chief James McMillan, of East Orange, N. J., has recommended the purchase of a 1,000-gallon pumper and the appointment of eight additional firemen. Last year it was often found necessary to call in some of the men on the "off-shift."

FIRE DEPARTMENT ACTIVITIES

Huntington Valley, Pa., Orders Pumper—The Huntington Valley Fire Company No. 1 of Huntington Valley, Pa., has ordered a 500-gallon Hahn pumper.

Farmingdale, N. Y., Awaits Ladder Truck—Farmingdale, N. Y., is expecting the delivery of a Hahn ladder truck equipped with a booster tank.

Parma, O., Firemen Have New House—Parma, Ohio, firemen have moved to their new fire station completed at a cost of $40,000.

Mt. Clemens, Mich., to Have New Fire Alarm—A new Gamewell fire alarm system will be installed in Mt. Clemens, Mich., to replace the 34-year old system.

Pleasanton, Cal., Has New House—A new fire house has been completed in Pleasanton, Cal. It houses three pieces of fire apparatus.

Colorado Springs Appoints New Firemen—Three firemen have been appointed for the Colorado Springs, Col., department.

Madison, Wis., to Have Another Fire House—A new Fire house will be opened in Madison, Wis., some time early in February.

Oroville, Cal., to Start on Fire Alarm—Construction will be started on the new fire alarm system for Oroville, Cal., to cost $21,000. Thirty-two fire alarm boxes will be installed.

Dover, O., Firemen Ask for Pension—A request has been made that a pension system for firemen be established in Dover, Ohio.

Gypsum, Ohio, Wants to Form Department—Attempts are being made to establish a volunteer fire department in Gypsum, Ohio.

Babylon, N. Y., Wants Apparatus—Chief Charles Vollmer, Jr., of Babylon, N. Y., has requested $12,000 for two new pieces of fire apparatus.

Fire Station Closed in Oil City, Pa.—Number 4 Station, located in the Ninth Ward of Oil City, Pa., has been ordered closed as part of an economy move started by the City Council.

More Men Wanted in Union City, N. J.—In the yearly report of the Fire Commissioner of Union City, N. J., a request has been made that more men be added to the Fire Department.

Ex-Chief Byers of Westfield, Mass., Dead—Ex-Chief George H. Byers of Westfield, Mass., died on January 18 at the age of seventy-one. He retired in 1910 after twenty-one years service as Chief.

Pension Bill Introduced in Massachusetts—A bill has been introduced in the Massachusetts legislature to provide for the payment of $2,000 annuities to the widows of firemen and policemen who are killed in the performance of duty.

Calais Rushes Aid to Canadian Town—Aid was sent from Calais, Me., to St. Stephen, N. B., Canada, to help in fighting a fire which caused $250,000 damage in the business district.

More Boxes Planned for New York City—According to Fire Commissioner Dorman of New York City, two thousand fire alarm boxes will be installed. The new boxes will have a number of new mechanical and electrical improvements.

Nickerson Heads County Association—Charles L. Nickerson, Chief of Wildwood, N. J., was re-elected President of the Cape May County Firemen's Association for the seventh term. He is also Vice-President of the New Jersey Fire Chiefs' Association.

Altoona, Pa., Firemen to Get Pay Increase—Sixty members of the Altoona, Pa., fire department will be granted a pay increase and will secure a pension system. The firemen will turn over an insurance fund of $85,000 to be handled through the city administration.

Lancaster, Pa., Seeks to Oust Chief—Charles Kegal, of Lancaster, Pa., refuses to resign as chief of the department. The Chief insists that he can not be dismissed because of civil service law, although others are looking for a loophole in the law to find grounds for ousting him.

Toledo, O., to Erect Fire Alarm Building—Toledo, Ohio, plans to erect a headquarters building for the fire alarm and police telegraph systems to cost $300,000. The building will be modeled after the one in Boston. The architecture will harmonize with the general civic center development.

Several Call Men Resign in Oregon City—Twenty-three call men of the Fire Department in Oregon City, Ore., resigned as a protest against the ousting of three paid firemen. According to the City Manager, fifteen new call men should have been appointed.

Reth Named Massachusetts Fire Marshal—John W. Reth of Boston has been appointed State Fire Marshall of Massachusetts by Governor Allen to succeed the late George O. Neal. He is a former commander of the American Legion and has served as commissioner of soldiers' relief work for Boston.

J. A. Cribby Chief of Somerville, Mass.—Deputy Chief Joseph A. Cribby has been named head of the Somerville, Mass., Fire Department as successor to Chief Sewall A. Rich who retired on a pension several months ago. Chief Cribby was presented with a new chief's helmet by members of the department.

Paid Fire Drivers Start Court Action—The paid fire department drivers of Harrisburg, Pa., have started action to force the adoption of the two-platoon system for paid firemen. The drivers are now on duty twenty-four hours a day for five days a week. The men contend that under a 1919 law paid firemen should work in two shifts, a day shift of ten hours and a night shift of fourteen hours. The Council contends that the law only applies where the department consists entirely of paid firemen.

Unusual Design of Squad Car

A novel and unusual special rescue squad car, manufactured by the American-LaFrance and Foamite Corporation of Elmira, N. Y., has been delivered to the fire department of Washington, D. C.

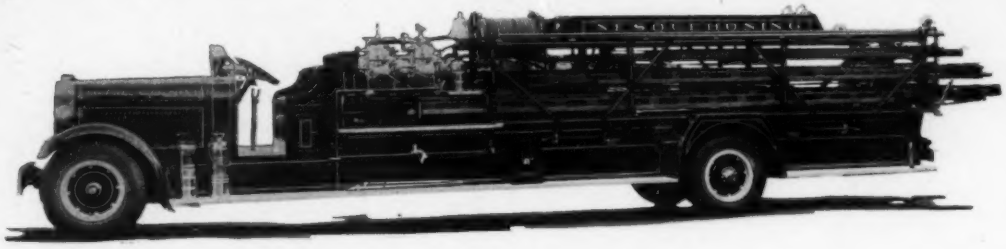
The unusually designed body is mounted on an American-Lafrance Type "75" chassis, which is equipped with a 130 horsepower motor and four-wheel brakes.

One of the features of the car is a 3½ kw. 110 volt, d.c. electric generator, mounted in an enclosure under the driver's seat and driven through a special transmission power take-off with gear shift and clutch control on the right hand side for engaging, disengaging and shifting the power take-off gears when the generator is put in operation. On the right center of the generator enclosure is mounted a control panel, equipped with voltmeter, ammeter, variable field resistance rheostat, automatic circuit breaker and switches and fuses for eight circuits. One of these circuits terminates in a real, equipped with detachable hand crank for rewinding, which carries two rubber insulated cables, each 600 feet in length for use with portable search or floodlights. Two other circuits, also controlled from the main switchboard, terminate in two searchlights, one mounted at the front end of the body on each side. The five remaining circuits terminate in waterproof outlets with switches under the control board on the right hand side of the frame. These outlets are for use in plugging in for electric drills, saws, portable searchlights, floodlights, etc.

The two searchlights mounted at the front end of the body are equipped with an adjustable telescopic standard which allows them to be revolved in a complete circle, as well as giving them a vertical range of 75 degrees.

The body itself is unique. It is constructed of steel throughout, extending over the rear wheels the full length of the truck, and is practically waterproof. It has seven compartments on each side with doors opening out, two compartments on each side with doors at the rear, and two compartments running the full length of the body in which may be carried folding stretchers. All of the compartments were designed especially for carrying various rescue devices such as inhalators, gas and ammonia masks, axes, etc. One compartment on the right front side of the body is designed to carry a complete first aid kit. A folding shelf may be let down from the door to provide a table for rolling and folding bandages.

Other equipment includes a 16-foot inside extension ladder, mounted on the right side of the body; two 10-foot folding Pompier ladders, a 10-foot pike pole and a 10-foot folding ladder mounted on the left side of the body.



City Service Truck with Double Bank Ladder Equipment

HAHN chasses embody the latest features known to automotive science, viz., powerful 6-cylinder smooth running engines, 4-wheel hydraulic brakes operated through vacuum booster, full-floating heavy-duty axles, heavy-duty clutches and transmission.

HAHN Fire Equipment—pumpers, booster tanks and pumps, hose bodies, ladder equipment all bespeak *quality, dependability* and *efficiency.*

300 to 1000 gallon pumpers.

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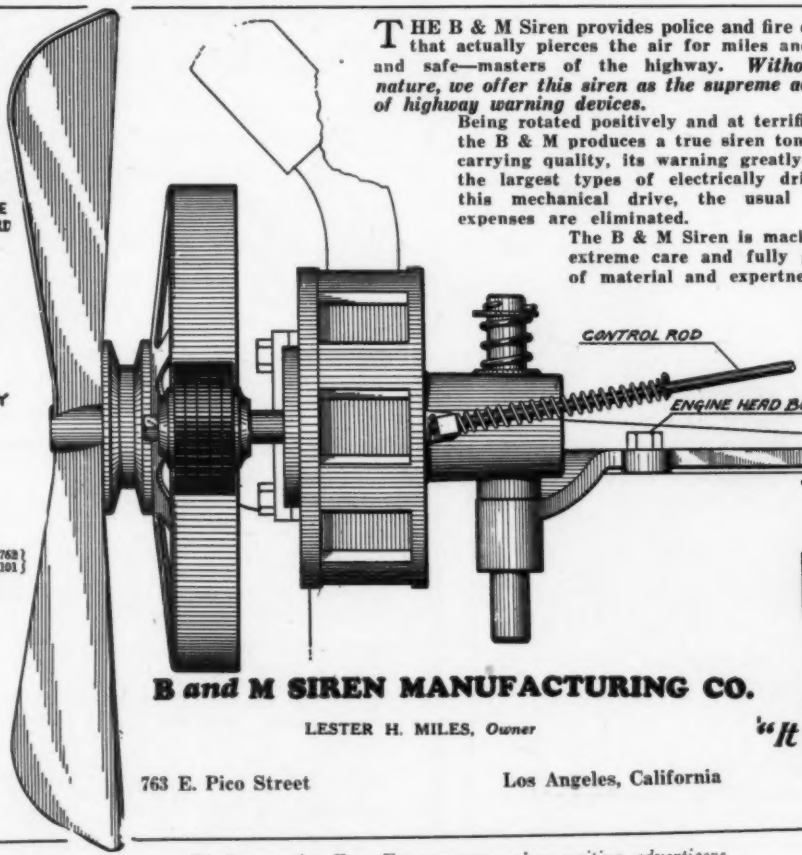
Others Pending



THE B & M Siren provides police and fire departments with a voice that actually pierces the air for miles and makes them absolute—and safe—masters of the highway. *Without a reservation of any nature, we offer this siren as the supreme achievement in the design of highway warning devices.*

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Control is effected through foot or hand levers optionally, or both. Specifications for fire apparatus, etc., are carefully considered in the manufacture of these signals.

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One big whistle with 1930 improvements throwing the sound equally in all directions.

THE BEST MADE, we leave it up to you, your engineers or any good mechanic, and a test.

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A jacket weave which provides multiple jacket strength with single jacket flexibility. Write for details.

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Reed's Uniforms are most economical because they represent full value for the amount expended.

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Write for complete information.

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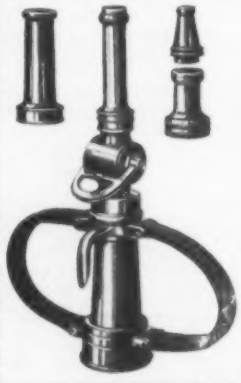
Mfrs. Motor Fire Equipment and Fire Supplies
Kansas City, Kansas



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CONNECT and DISCONNECT instantly!

Any size hard suction

Years of Service Prove it the Best

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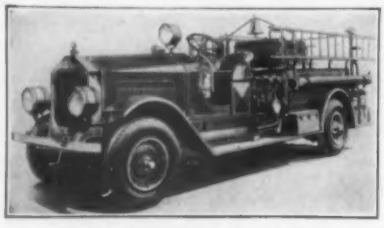
MAXIM FIRE APPARATUS

All Types



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Give us an opportunity of quoting on your next requirements. Let us send you our general catalog.

THE LARKIN MANUFACTURING CO.
Established 1898 **DAYTON, OHIO**

PROPOSED IMPROVEMENTS

Chalfont, Penn.—Chalfont Fire Co. contemplating erection of new fire station, according to reports.

Garfield, N. J.—Chief Otto Zimmerly recommended in his annual report to City Council the installation of a new fire alarm system, according to reports.

Paterson, N. J.—Fire Commission considering erecting new fire station to replace the old structures now separately occupied by No. 3 Engine and Truck Companies, according to reports.

Reedsport, Oregon—Fire department to raise funds for purchase of new piece of fire apparatus and additional fire hose, according to reports. John Bernhardt, Chief.

Odebolt, Iowa—City considering raising funds for purchase of new fire apparatus. Ira Selby, Chief of Fire Dept.

Washington, Iowa—City Council considering purchase of new piece of apparatus to replace one of the trucks now used by fire department.

Bakersfield, Calif.—Civic Commercial Association suggests that City Council consider installation of $230,000 fire alarm system, according to reports.

Bayonne, N. J.—Fire Chief Wm. S. McLoughlin recommended the purchase of a new aerial ladder truck to replace present one used by Truck No. 2, according to reports.

Sacramento, Calif.—Reports state city may purchase a new pumper for the fire department.

Escalon, Calif.—Residents considering purchase of fire apparatus for rural fire protection, according to reports.

Wanted—Fire Apparatus Salesman

Fire apparatus salesman wanted to represent one of the leading manufacturers in Eastern Pennsylvania and Southern New Jersey. Address Box 220, care of FIRE ENGINEERING, 225 West 34th St., New York.
2-5

Fred Bensen Opens Utica Office

Frederick E. Bensen, Eastern Sales Agent, Ahrens-Fox Fire Engine Company, announces the opening of a branch office at Utica, N. Y., in charge of Howard A. Johnston. Mr. Johnston has been in the fire apparatus business for some time and is well-known in fire department circles throughout New York State.

Harry Oldack Forms Appliance Company

Harry F. Oldack, formerly eastern manager of the Peter Pirsch & Sons Company has severed his connection with that organization and has formed the Standard Fire Appliance Company with officers in New York City and Plainfield, N. J. This new organization will engage in the sale of fire apparatus equipment and supplies. Mr. Oldack has many friends in the fire service, having been engaged in this field for several years past.

Harry F. Oldack

Winnipeg Rate Lowered

Insurance rates in Winnipeg, Canada, have ben lowered twenty per cent because of increased efficiency of the fire department. This cut brings Winnipeg in the same class as Toronto, which is considered to have one of the most favorable rates in Canada.

The statement made public by the Western Canada Insurance Underwriters' Association reads, in part:

"The underwriters, in considering the improvement in conditions in Winnipeg, feature such matters as improvement in the fire-fighting methods, which has led to reduced losses from water damage and fewer buildings being subject to total destruction. Credit is given for the reorganization of the fire department, with a consequent improvement in the personnel and equipment. The equipment furnished the brigade for fighting fires has been brought up to date and been very materially improved both in the number and efficiency.

"The increased pressure in the domestic mains of the downtown section has obviated to a large extent the necessity for the use of the high-pressure system, and resultant water damage loss to stocks and perishable commodities."

Urbana Chief Celebrates Tenth Anniversary—Chief George Donovan has completed his tenth year as head of the fire department in Urbana, Ohio. The various civic organizations sent letters commending him upon his past record. Chief Donovan is a retired Cincinnati fireman, having served that city for twenty years.

Wrong Number Saves Work for Pumper

Day after day members of a Montana fire company blessed with a new pumper waited patiently for an honest-to-goodness fire so that the new apparatus could be properly baptised. Finally an alarm was received but the wrong street number was recorded. Firemen on the pumper raced all over town trying to locate a fire. It was disappointing to have a fire so near and yet not be able to get to it.

Finally the men saw a rival ladder company returning from the fire. It was the last drop to a most bitter cup of sorrow. But the engine company members hope that their luck will break and that some fire will justify their faith in the new apparatus.

Corvallis, Ore., Department Holds Banquet—A group of representative citizens of Corvallis, Ore., attended a banquet arranged to honor the Fire Department. Chief Tom Graham was taken suddenly ill the previous afternoon and was unable to attend. Many speakers lauded the good work of the chief and his interest in fire prevention.

CONVENTION DATES

Jan. 21-2—NEBRASKA STATE VOLUNTEER FIREMEN'S ASSOCIATION. 48th Annual Convention, Kearney, Neb. Secretary, H. A. Webbert, Kearney, Neb.

March—SOUTHWESTERN ASSOCIATION OF FIRE CHIEFS. 3rd Annual Convention, Oklahoma City, Okla. (Tentative—Exact date to be decided later.) Secretary-Treasurer, Chief Tom Lyle, Okmulgee, Okla.

April 7-10—FLORIDA STATE FIREMEN'S ASSOCIATION. 5th Annual Convention, Vero Beach, Fla. Secretary, F. C. Pfaender, Winter Haven, Fla. Secretary, Local Convention Committee, E. G. Thatcher, Vero Beach.

May 12, week of—NATIONAL FIRE PROTECTION ASSOCIATION. 34th Annual Meeting, Atlantic City, N. J. 1931 Convention probably to be held in Toronto, Can. Managing Director, Franklin H. Wentworth, 60 Batterymarch St., Boston, Mass.

May 14—DEL-MAR-VA. VOLUNTEER FIREMEN'S ASSOCIATION. 1st Annual Convention, Cambridge, Md. Secretary, J. Emory Parks, Cambridge, Md.

May 19-23—KANSAS STATE ASSOCIATION OF FIRE CHIEFS, STATE FIREMEN'S ASSOCIATION and FIRE SCHOOL. Respectively, 14th and 43 Annual Convention and 2nd Annual Fire School Salina, Kan. Secretary, Chief K. D. Doyle, Wamego, Kan. Secretary, Firemen's Short Course Committee, E. J. Stewart, Kansas Insp. Bureau, 701 Jackson St., Topeka, Kan.

June—EASTERN ASSOCIATION OF FIRE CHIEFS. 3rd Annual Convention, Baltimore, Md. (Exact date to be decided later.)

June 2-6—AMERICAN WATER WORKS ASSOCIATION. 50th Annual Convention, Hotel Jefferson, St. Louis, Mo. Secretary, Beekman C. Little, Rochester, N. Y. Offices of the Association, 29 West 39th Street, New York City.

June 4-6—NEW MEXICO STATE FIREMEN'S ASSOCIATION. 8th Annual Convention (Combined with Firemen's Short Course), Deming, N. M. Secretary-Treasurer, Theodore A. Rosenwald, Albuquerque, N. M.

June 9-11—SOUTH CAROLINA STATE FIREMEN'S ASSOCIATION. 25th Annual Convention, Beaufort, S. C. Secretary, R. S. Hood, Sumter, S. C.

June 11-13—MARYLAND STATE FIREMEN'S ASSOCIATION. 38th Annual Convention, Lord Baltimore Hotel, Baltimore, Md. Secretary, George R. Lindsay, Hagerstown, Md.

July 8-11—MICHIGAN STATE FIREMEN'S ASSOCIATION. 56th Annual Convention (with School for Instruction), South Haven, Mich. Secretary-Treasurer, H. L. Williams, Ludington, Mich.

July 9-10—DELAWARE VOLUNTEER FIREMEN'S ASSOCIATION. 10th Annual Convention, Georgetown, Sussex County, Del. Secretary, Sam H. Carson, Dover, Del.

July 22-23—WESTERN NEW YORK VOLUNTEER FIREMEN'S ASSOCIATION. 30th Annual Convention, Rochester, N. Y. Secretary, Henry A. Clark, Batavia, N. Y.

July 29-31—INDIANA FIREMEN'S ASSOCIATION. 13th Annual Convention, Lafayette, Ind. Secretary, Clem Smith, Fire Headquarters, Terre Haute, Ind.

July 31-Aug. 1-2—CALIFORNIA STATE FIREMEN'S ASSOCIATION. 8th Annual Convention, San Francisco, Cal. Secretary-Treasurer, H. E. Strasser, 1171 Tenth Street, San Diego, Cal.

August—UTAH STATE FIREMEN'S ASSOCIATION. 23rd Annual Convention, Provo City, Utah. (Exact date to be decided later.) Secretary, Charles A. Canning, Midvale, Utah.

Aug. 19-22—FIREMEN'S ASSOCIATION OF THE STATE OF NEW YORK. 58th Annual Convention, Nyack, N. Y. Secretary, Fred A. Davis, Drawer X, Fort Edward, N. Y.

Aug. 27-29—VIRGINIA STATE FIREMEN'S ASSOCIATION. 44th Annual Convention, Phoebus, Va. Secretary, E. K. Landis, Pulaski, Va.

Sept. 2-4—KENTUCKY FIREMEN'S ASSOCIATION. 11th Annual Convention, Paducah, Ky. Secretary, Capt. S. G. Render, 940 Starks Bldg., Louisville, Ky.

Sept. 9-11—ILLINOIS FIREMEN'S ASSOCIATION. 43rd Annual Convention, Peoria, Ill. Secretary, Assistant Chief Roy W. Alsip, Fire Department, Champaign, Ill. Exhibits, Chief Albert Herring, Fire Department, Murphysboro, Ill.

Sept. 16-17—IOWA FIREMEN'S ASOCIATION. 53rd Annual Convention, Boone, Ia. Secretary, Paul Soener, Independence, Ia.

Sept. 24-25—MISSOURI STATE FIREMEN'S ASSOCIATION. Annual Convention, Trenton, Mo. Secretary-Treasurer, M. J. Mulvoy, 3500 S. Grand Boulevard, St. Louis.

Oct. 7-9—FIREMEN'S ASSOCIATION OF THE STATE OF PENNSYLVANIA. 51st Annual Convention, Hotel Americus, Allentown, Pa. Secretary, Charles E. Clark, 411 Bellevue Avenue, Wayne, Pa.

Oct. 21-23—NEBRASKA STATE VOLUNTEER FIREMEN'S ASSOCIATION. 49th Annual Convention (2d in year). Secretary-Treasurer, H. A. Webbert, Kearney, Neb.

FALSE ALARMS

A DEMONSTRATION

A grocer was charged with beating a fire department inspector. In court the judge asked:

"What have you to say?"

"Nothing," exclaimed the green grocer. "I am guilty. I lost my head. All morning I held my temper while government agents inspected by scales, tasted my butter, smelled my meat, graded my kerosene. In addition, Your Honor, I had to answer a number of questionnaires. Then this fellow came along with a big badge and asked me, 'What would you do in case of fire?' and so I fired away."

Our opinion of the dumbest girl is the one who believes Mack Trucks is a Scotchman.

A GOOD HOST

All the ladies who attended the county fire association meeting were guests at tea in the home of the local chief. As the ladies were being entertained, the little daughter rushed in to play a practical joke on her mother.

"Oh, mama there's a strange man in our kitchen. I peeped in through the keyhole—an' he has Mary, our maid, on his knees, an' he's pettin' her an' kissin' her."

The hostess excused herself while she went to investigate such clandestine doings in her home. The little girl then danced up and down with glee.

"I was just foolin' mama. It's no strange man at all. It's only papa."

"What must one do to have beautiful hands?"

"Nothing."

AN ASSET

Mike Gerrity, who was assigned to theatre detail and paid no admission charge, could afford to be critical of the show. He was backstage discussing matters with a scene shifter.

"See that chorus girl—second from the end," remarked the stage hand, "her face is her fortune."

"Yeh, I see," said Mike. "It runs into a nice figure."

The girl who swam several miles every day last summer now sits in the parlor and asks someone to bring her a glass of water.

NOT COMPLETE

A certain fireman whose desire to be chief some day had made him ambitious to the utmost degree, was trying to show his company associates how it is that laughing gas could form some poisonous nitrous compound. One who was dubious of the explanation asked:

"Where did you learn anything about chemistry?"

"I took a correspondence school course."

"Humph. I guess that you've lost a lot of your mail."

Many believe they are musical because they have drums in their ears.

SMOKER STORIES

The fire commissioner was surprised to see a number of men on the way to church whom he recognized as members of the local department. He was curious and drove to the nearest station to learn the answer to the riddle. The man at the desk said:

"I would like to have gone too. There's a traveling salesman down there confessing his sins."

YOUR MOVE

"I'll beat it," said the drummer.

"Guess I'll blow," said the saxophone player.

But those who lived nearest the fire house were the first to move.

Dentists don't beat their wives; they just crown them.

TURNED WRONG

The policeman at the corner was surprised to see the chief driving the department roadster.

"How is that new man doing with the driving?"

"Oh, he took a turn for the worse last week."

SIGNS OF LOVE

When a fire house is next to a residence in which several attractive girls live, then there is plenty of work for Cupid. One of the younger men had been a frequent caller at the adjoining house. The mother was very much interested and one day asked her daughter:

"Do you think that the young man's attentions are to be taken seriously?"

"Oh yes, mother. Only last night he asked me if I snored."

Put two and two together and the result is always the same: Bridge.

GOOD NEWS

Battalion Chief Sullivan had suffered from a nervous breakdown and he was ordered home by the department physician. A neighbor had heard the news and rushed in to console Mrs. Sullivan on the poor state of the wage-earner's health. But the visitor was surprised to observe her in a most happy frame of mind.

"My you look happy. Have you had any good news?"

"Just wonderful. The doctor has said that the chief has a nervous breakdown and we're going to Florida for the winter."

When Noah sailed the ocean blue,
He had his troubles same as you.
For forty days he drove his Ark.
Before he found a place to park.

HOW ABOUT GIVING HIM A SHOT OF FOAM?
WOW! MY SH-STUMICK HIC-ZALL APHIRE
ARE YOU SURE IT AINT GAS ON YOUR TUMMY?
WANTA CELLAR PIPE, CHIEF?

Drawing by "Art" Espey

Man With "Burning" Stomach Calls Firemen But is Given Isolation Treatment in Police Court

When a chief of a New York state department answered an alarm and looked around for a fire, he thought that he had answered another false alarm. But a resident with one hand over his stomach, explained most pathetically that the fire was within his anatomy. The man was turned over to the police department, lodged in the city jail, and charged with both intoxication and turning in a false alarm. It was learned that the imbiber checked in in the early hours of the morning with a burning stomach, and the only antidote he could think of was the fire department.

Good Will Fire Company

Pemberton, N. J. December 23rd 1929.

Federal Electric Company,
8700 South State Street,
Chicago, Ill.

Gentlemen:

You may be interested to know that during a severe sleet and snow storm recently, the No. 5 FEDEL-CODE siren, which is installed in our borough, was completely covered with snow and icicles.

Remembering that your representative had laid a great deal of stress on the weather proof feature of the FEDEL-CODE it was decided that this would be an opportune time to give the Siren a thorough test.

It is a pleasure to inform you that it operated without any difficulty, whatever.

The test has proven , beyond all doubts, that the Alarm is perfectly reliable under all weather conditions.

You may call upon us at any time for a recommendation, and we will be only too glad to tell any one the experience we have had with the FEDEL-CODE Siren.

Yours truly,

GOOD WILL FIRE COMPANY.

Harry W. Inglin - Chief

Write for further details about this superior siren for installation in your city!!

The Clark Oxygen Carbon Dioxide Inhalator

THE Clark Inhalator is specially adapted for administering the new and more effective treatment of asphyxia, using both 7% and 5% Carbon Dioxide in Oxygen.

Results are what you seek and this new treatment gives you results. Not all inhalators are suitable for use with this advanced method of treatment. That's why you want a "Clark" for your Department.

Full details about this improved treatment sent on request.

McDonald Engineering Corp.
220 Varet Street Brooklyn, N. Y.

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Standard for Fifty Years

1879

1929

No. 862-F

	One	More Than One
Gold Filled	$5.00	$4.50
Silver	4.50	4.00
Gold Plate	1.50	1.25
Nickel	1.00	.75

C. G. BRAXMAR CO.
242 West 55th St., New York

Another Prominent Fire Chief says –

CITY OF HELENA
HELENA ARKANSAS

March 30, 1929.

Fulton Bag & Cotton Mills,
Atlanta, Ga.

Gentlemen:

The city of Arkadelphia, Ark., wrote me for size and price of our covers and how many we had. I wrote them and told them all they wanted to know, also that we bought them from you and how much water damage we were saving by using them.

Chief Chas N Kush

"Shuredry" Waterproofed SALVAGE COVERS

More evidence of the importance of "Shuredry" Salvage Covers to every Fire Department, no matter where located.

Not only do Shuredry Covers cost less than rubber, they are much easier to handle and spread, and do not peel or crack when folded and stored.

Write our nearest plant for samples and prices.

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Brooklyn Dallas Atlanta, Ga. St. Louis Minneapolis
New Orleans Kan. City, Kan.
Manufacturers Since 1870

Saves time - *and costly hose*

No. 1. (Capacity 3 to 7 tons; weight, each, 72 lbs.)

No. 2. (Capacity 3 to 12 tons; weight, each, 118 lbs.)

Complete information and Prices on request.

It's often necessary to move apparatus at a fire. Automobile traffic hates to be held up by a line of hose stretched across the right of way.

Why ruin your hose by driving over it? Or waste valuable time cutting off and disconnecting?

The Wausau Protector is a big time and money saver—easy to handle and carry. Order a set today, or write us for particulars.

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of every description stronger than lead and non-corrosive. Used by departments throughout the country.

Chemical Tanks and Lally Quick Opening and Self-packing Top for Chemical Tanks

Lally Improved Fire Hose Couplings, Fire Extinguishers and Charges, Fire Hose and Fire Department Supplies in General

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Wilmington Brass Co., Wilmington, Del.

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Invincible and Callahan Nozzles

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are in use throughout the country and giving unsurpassed service.

Every fire official should be fully acquainted with Morse equipment and have our catalog and other descriptive literature on file for ready reference whenever considering the purchase of new equipment.

You will find that it pays.

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221 High St. Established 1837 Boston, Mass.

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Are made of strong, heavy duck and lapped seams and are designed of such thickness and weight as to be light enough to be handled quickly and rigid enough for the most strenuous service. They are rubberized on both sides with a double coating of a high grade, long life, rubber compound.

CLIFTON SALVAGE COVERS are built to stand the heaviest abuse and are used by many of the large Protective Departments.

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Established 1864

Clay Automatic Door Opening Devices for Fire Station Doors Opening either In or Out. Save valuable minutes in getting to fires. Send for Bulletin.

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FIRE FIGHTERS CLOTHING

GIVES real protection and comfort in any weather and at any kind of fire. Designed to permit freedom of action, eliminating cumbersome excess weight. Made of materials that withstand the hardest kind of usage. Bodyguard apparel is used by Firemen everywhere.

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THE BODY GUARD MANUFACTURING CO.
ST. JOSEPH - - MISSOURI

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The **Corey** Fire Hydrants as built by us are the only **Genuine Corey Fire Hydrants** manufactured, and they conform to the standard specifications of the American Water Works Association.

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TROY, N. Y.

Fire Fighting Equipment

The quality of Pirsch fire fighting equipment is assured by more than seventy years of manufacturing experience. The Pirsch line is complete, chemical engines, ladder trucks, pumpers and Pirsch trussed fire ladders. Write.

PETER PIRSCH & SONS CO.

Factory and Home Office
Kenosha, Wisconsin

Eastern Office
5 Beekman St., New York, N. Y.

The Round Table

(*Continued from page* 104)

ing in first aid work very essential to a fire department. Our department consists of two companies of volunteers of approximately one hundred members and five paid men.

I have had a safety director of a nearby concern give a lecture and demonstration along these lines to my men. We have had one occasion lately where we revived a man by the prone pressure method of resuscitation. We also have a modern first aid kit on our truck.

Wilbrod Boyer, Capt., Ironwood, Mich.: Every member of the fire department of Ironwood has taken a course in first aid work. Some members have taken advance work. We are fortunate in having the Mine Rescue Car on the range once a year and so far have on two occasions taken a full course of four days each.

We carry a standard first aid kit, four gas masks, and hope to equip ourselves with an inhalator in the near future.

W. J. Mohr, Engine Co. 1, Santa Monica, Cal.: First aid is taught to all members for their own knowledge and protection. A standard first aid kit is carried on each piece of apparatus, but no public first aid work is done by the department members.

I do not believe that the average fireman takes sufficient interest in first aid work to become efficient in same and thereby warrants the time which should be put into it. Every city employee should be trained in this work so that they may be able to cope with any emergency which might arise.

First aid equipment for fire departments should be complete in every detail, and the operations of same carried out by a thoroughly trained crew of men.

S. Ferguson, Chief, Fort Worth, Tex.: We do not teach first aid in our drill school, but will probably institute such a course early in the new year, at which time it is hoped we will be able to organize a first aid and salvage company.

C. E. Underwood, Chief, Manistique, Mich.: Members of our department are trained in first aid work, which I consider very essential in fire departments.

Complete first aid kits are carried on each piece of apparatus and all members are familiar with the contents thereof and the proper use of each. Men are also trained in artificial respiration.

The most important first aid equipment in my judgment is a good inhalator and complete first aid kits.

H. E. Nissen, Chief, Winston Salem, N. C.: We are engaged in the training of our firemen in first aid work at the present time. In consideration of the ambulance service we have at all box alarm fires, we do not deem first aid training of men essential. We do, however, consider it beneficial and it is highly probable that time will prove that no mistake was made in giving this training. It certainly cannot in any way be a detriment to the department.

The customary first aid kit, supplemented by the major essentials should constitute the equipment.

W. R. Price, Chief, Springfield, Mo.: I train the men of my department in first aid work, and consider such training very helpful. Our equipment is not very elaborate, but through the cooperation of a local business establishment and the Missouri Inspection Bureau, my men have been taught artificial respiration and the use of the inhalator, which I believe to be the most essential points to learn.

Edward Millspaugh, Chief, Wyandotte, Mich.: We train our men in first aid work and resuscitation, and certainly believe it is essential. The department has been practicing this work for a year and have saved four lives in that time.

Equipment should consist of: Inhalator, masks, blankets, hot pad and standard first aid kit.

W. S. Knight, Chief, Salt Lake City, Utah: Most of the members of this department have had first aid training, and we will endeavor to make it 100 per cent at an early date. We consider that first aid knowledge is very important in connection with our work.

All apparatus is equipped with a first aid kit, and an inhalator is kept at headquarters station.

Frank Hurby, Chief, Berwyn, Ill.: Members of this department are trained in first aid work. A small first aid kit is carried on each pumper, and we also have two lungmotors. The men practice twice each week with these, as well as artificial respiration. I think it is well for the men to be posted in this line of duty.

James J. Mulcahey, Chief, Yonkers, N. Y.: We train all members of the department in first aid work, and believe it is absolutely necessary in the modern fire department.

We have inhalators and carry first aid kits on our apparatus with all necessary remedies for burns, cuts, bruises, etc.

T. B. Parks, Chief, Hannibal, Mo.: First aid work is a part of our drill school course and is taught regularly. I cannot see how a fire department can get along without such knowledge.

J. G. Neithammer, Chief, Reading, Pa.: We have no training school, but the men are versed in first aid work. First aid kits are provided for each piece of apparatus, and we have also two ambulances in the department. Lungmotors and other equipment are carried on the ambulances.

W. R. Collin, Chief, Bristol, Tenn.: All members of my department are trained in first aid work, and I consider such essential to the modern fire department. Equipment should consist of a standard first aid kit, stretcher, blankets and inhalator.

J. J. Shea, Chief, Hoosick Falls, N. Y.: Members of this department are not trained in first aid work although I believe such work to be essential. A complete first aid kit supplemented by various accessories to properly carry out this work should constitute the equipment.

E. L. Rhoades, Chief, Kearney, Neb.: My men are all trained in first aid, and I consider such essential to the modern fire department. We have a standard first aid kit and teach the prone pressure method of resuscitation.

E. I. Kingsley, Chief, Aberdeen, S. D.: All members are trained in first aid work. A first aid kit and an inhalator are the essential items to be provided for this line of duty.

Answers to Previous Questions

H. P. Fife, Chief, Fort Bragg, N. C.: All buildings are inspected every month, special attention being given to garages, machine shops, paint warehouses, storage warehouses, aeroplane hangers and ammunition magazines.

Metal containers must be provided for oily and greasy waste in shops. These containers are removed every afternoon and their contents burned. Floors must be kept clean and no smoking is permitted in shops or warehouses. Shop or warehouse foremen inspect buildings before closing time at night to see that fire doors are closed and conditions generally in a satisfactory condition.

Considering the existing hazards due to the presence of a great many frame buildings, our fire loss is comparatively small. I believe in fighting fires before they start, and therefore demand good housekeeping as the first step in the prevention of fire.

Frederick S. Bullent, Chief, Rensselaer, N. Y.: Inspection of buildings such as stores, factories, schools, etc., are made by myself as Chief of Department. The department is

Gymnasium of Rutgers University Destroyed

The Robert F. Ballantine Gymnasium on the campus of Rutgers University, New Brunswick, N. J., was destroyed by a fire of undetermined origin. The loss was placed at about $200,000. Hundreds of students assembled about the building to watch the flames.

all volunteer except the chief, two assistant chiefs and eight full paid drivers. Inspections are carried out on a monthly basis.

Dwellings are not inspected so often, but I do look after the cellars where rubbish is bound to accumulate at times. During the big inspection period, I always take one or two of the officers or drivers of the volunteer companies with me, and a general study of the layout of each building is made. The information so obtained is used for study by the remaining members of the department so that a thorough understanding of the various buildings might be had.

Emil Goudreau, Chief, Kankakee, Ill.: Inspection work is done once a month by firemen on their day off. My hobby is to have the basements and storage rooms included in such inspections, of which there are about 279 in the uptown district alone. Theatres, hotels, garages, dry cleaning plants and factories are inspected by the chief and fire committee (composed of three aldermen of the city council). Dwellings are inspected on complaint only. Factories are inspected twice a year. All reinspections are handled by the chief himself.

F. H. Grabner, Chief, Baker, Oreg.: On January 1st we put into effect the two platoon system, ten hours for the day shift and fourteen hours for the night platoon. Shifts are to change every two weeks. Since reading the experiences of other departments, I am inclined to believe we would prefer a 24-hour shift.

Damages to Fire Chief for Injury

(*Continued from page* 98)

warehouseman for the value of the destroyed merchandise. During the trial the watchman testified:

"If the hole had not been in the hose, so that all the water could have been forced through the nozzle, I could have put out the fire when I got there. If the hose had been long enough, so that I could have gotten up to the fire while it was small, I believe I could have put the fire out anyway."

In view of this testimony the Court held the warehouseman liable for the value of the stored goods, saying:

"The warehouseman's night watchman, after he discovered the fire, did not exercise ordinary care in using the means and facilities at hand in attempting to extinguish such fire, and that his failure to do so was a proximate cause of the destruction. . . . The testimony of the watchman with reference to the size of the fire when he first discovered it, and the rapidity with which it spread, was self-exculpatory. . . . The size of the fire when said witness reached the same, the rapidity with which it spread, the condition of the hose, the effect of the hole in the same, through which the water escaped after leaving the hydrant, the distance when the hose was extended full length between the nozzle and the fire, and the amount water that could have been carried in the hose to the fire, but for such defects were all necessarily matters of estimate."

Distinction Between Governmental and Ministerial Functions

Generally speaking, neither a city nor a state is liable for injuries arising from performance of its governmental functions. Moreover, this law is effective although the injury is caused by things not used exclusively in a governmental capacity, as by the city fire department.

Another interesting point of the law is that a municipal corporation is bound to keep its streets, including sidewalks, in a reasonably safe condition for travel by the ordinary methods. Moreover, it is liable for injuries sustained in consequence of its failure to do so, no matter by what cause the street or sidewalk may have become defective or unsafe, where the city knew or should have known of the defect in time to repair it or to give warning of its existence.

Also, it is important to know that the law which exempts a municipality from liability for acts done in the exercise of the governmental function cannot be allowed to destroy another equally well established doctrine. If a city negligently and tortiously allows obstructions to remain in the streets or sidewalks, and a citizen in the exercise of due care is injured in consequence of such act of negligence upon the part of the city, the citizen may recover therefor against the city.

For instance, in McFarland vs. City of McCaysville, 148 S. E. 421, it was disclosed that a woman pedestrian was walking along the sidewalk at night and had no occasion to be strictly mindful of whether the sidewalk contained an obstruction or not, and had no actual knowledge of the existence or location of any fire plug. The pedestrian tripped over the plug and was seriously injured. She sued the city for damages and proved that the sidewalk was about five feet wide and at a point five inches from the street the city maintained a fire plug four inches in diameter and only six inches in height, and that the plug was unprotected by any guard or barrier so as to prevent foot passengers from coming in contact therewith.

The city attempted to avoid liability on the grounds that the maintaining of incidentals to a fire department is a governmental function, because conducting a fire department is recognized by the Court as being in this classification.

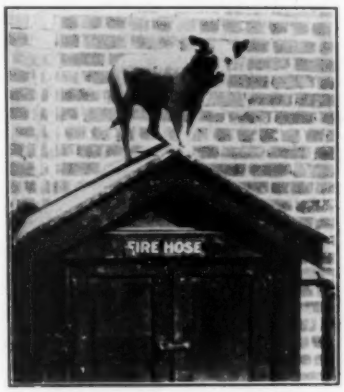
It is interesting to observe that the lower Court held the pedestrian not entitled to a recovery, but the higher Court reversed his verdict, saying:

"It cannot be said as a matter of law that the plaintiff's injury should be attributed to her negligence, as the proximate cause, or that the consequences of the defendant's (city's) negligence could have been avoided by the exercise of ordinary care. And this is true notwithstanding the plaintiff may have been a resident of the city for several years, during the course of which she had at times traveled upon the identical sidewalk, and although upon the particular occasion there may have been lights in close proximity which afforded ample illumination for ordinary purposes."

Dog Prevents Spread of Fire

Truth is ofttimes stranger than fiction!

Were the following facts worked into a motion picture story, it is possible that the average person might consider the plot just a little bit far fetched. However, the story occurred in Stockton, Cal., and the chief actress was a little terrier that had wandered into the garage of the Pacific Gas & Electric Company many years before. Little can happen with Tillie on guard twenty-four hours of the day.



Tillie Standing Guard

Early in the morning the dog saw nine automobiles ablaze and seventy other cars in the garage in danger of destruction. There was no one in the garage at the time but Tillie. She ran across the road where she noticed plenty of men at the gas works. She singled out the foreman and ran around him in circles, barking all the time. At frequent intervals the dog started to run towards the garage. At first the foreman did not understand, but after this performance was repeated, he followed the dog. The garage told its own story. He turned in an alarm and the fire department was able to limit the loss to $1,000.

CHARLES W. GEIGER.

Fire Uncovers Illicit Still

An unusually large and well equipped still was discovered as the result of a fire in an old brewery building in Newark, N. J. A passerby who saw smoke swirling from the roof turned in an alarm. The fireman found no blaze, and after searching the building thoroughly found what appeared to be a solid brick wall. A secret door was located.

Once through the passage, the firemen found an establishment which went two stories underground. In it were discovered 12,500 gallons of finished alcohol, a 20,000-gallon still, eight 5,000-gallon vats, ten 5,000-gallon tanks, a 5,000-gallon mixing vat, 8,500 pounds of brown sugar and large amounts of corn meal and yeast. The plant was valued at $250,000.

Troy, Ill., to Have Fire Apparatus—Troy, Ill., is awaiting the delivery of fire apparatus that was purchased from the General Manufacturing Company for $5,315.

Long Island Has Forest Truck—Special equipment has been developed for the protection of forest lands on Long Island against possible forest fires. A 350-gallon pump, six knapsack pumps and tools for twenty-five men are included in the equipment carried.

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You only have to run down the list of equipment and mail in the coupon below with your name and address and the numbers that indicate what you are interested in and we will then have the leading manufacturers of this equipment send you complete information direct—so why not let us help you get what you want? We are glad to be of service. So this way, please!

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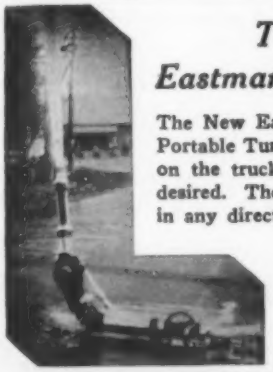

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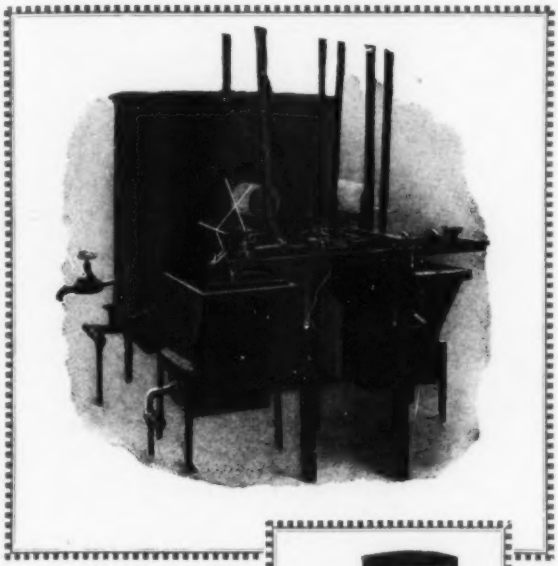

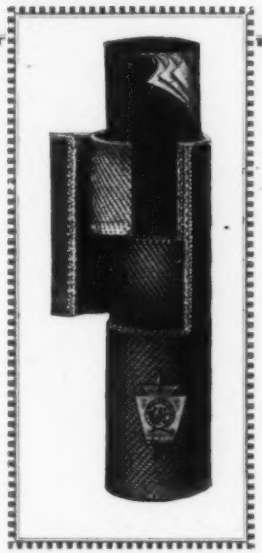

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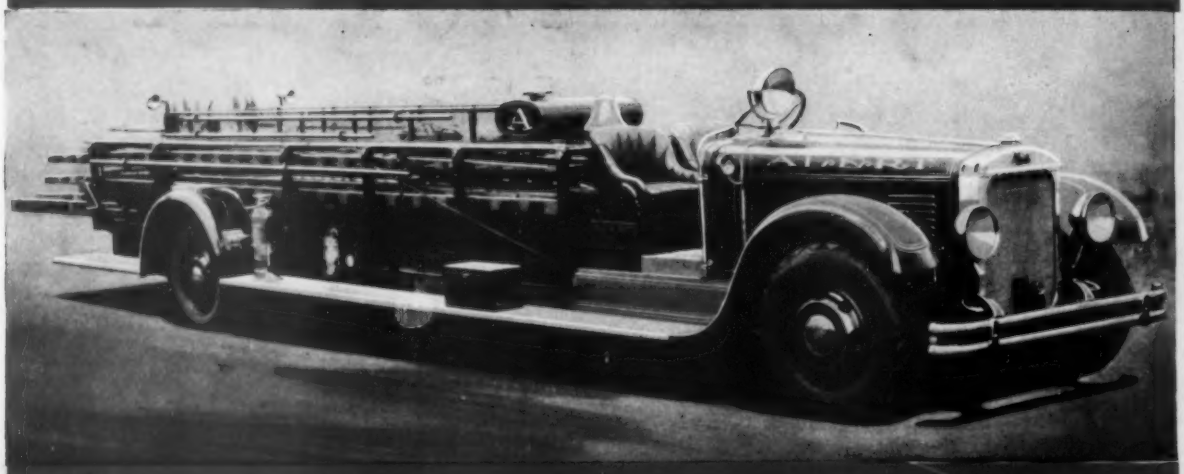

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